

NEWS AND NOTICES

Readers are invited to submit to the Secretary of the Institute news items of interest

Personal Items

Fred C. Andrews, formerly Research Associate in the Applied Mathematics and Statistics Laboratory, Stanford University, is now Assistant Professor of Mathematics and Assistant Statistician in the College of Agriculture at the University of Nebraska.

Dr. R. R. Bahadur is now an Assistant Professor in the Committee on Statistics of the University of Chicago.

T. A. Bancroft, director of the Statistical Laboratory, Iowa State College, has been on a 3-month assignment during fall quarter in the Near East and India at the request of the Food and Agriculture Organization of the United Nations. During the first 6 weeks he visited experiment stations and ministries of agriculture in Egypt, Syria, Iran, and Iraq to collect information on the present use of experimental designs and survey techniques in research investigations. Since then he has given a program of seminars at an Experimental Designs Training Center sponsored by FAO in New Delhi.

Gerald W. Barnes, formerly a graduate student at Indiana University, has accepted an instructorship in Psychology at the University of Maine.

Richard H. Brown has accepted a position of Assistant Professor of Mathematics at Boston University.

Edward C. Bryant returned to his position as Chairman of the Dept. of Statistics, University of Wyoming, last July after a year's study in the Dept. of Statistics, Iowa State College.

Douglas G. Chapman of the Department of Mathematics, University of Washington, has received a Guggenheim Fellowship for research in the statistical theory of population estimation and will be at the University of Oxford during the academic year 1954-55.

Dr. Louis J. Cote has been appointed Assistant Professor of Mathematics at Purdue University. He will be associated with the Statistical Laboratory.

Edwin L. Crow, formerly employed at the U. S. Naval Ordnance Test Station, has accepted a position as Mathematical Statistician with the National Bureau of Standards, Boulder, Colorado.

The Council and Trustees of the American Mathematical Society announce the election of Dr. John H. Curtiss to the position of Executive Director of the Society. Dr. Curtiss is a fellow of the Institute of Mathematical Statistics and of the American Statistical Association. He assumed his duties on September 1, 1954. The Headquarters of the Society are at 80 Waterman Street, Providence, Rhode Island.

Joseph F. Daly has been granted a leave by the Bureau of the Census to spend a year at the Statistical Laboratory, Stanford University.

George G. den Broeder, Jr., formerly with the Weapon Systems Analysis

Department of the Northrop Aircraft Company, has accepted an appointment as Research Associate with the Purdue University, Statistical Laboratory.

Gerard T. Dobrindt, formerly a graduate fellow in the Mathematics Department, St. Louis University, received the degree of Master of Science (Research) from that University in June 1954 and is now employed as an Analytical Statistician in the Surveillance Branch, Weapons Systems Laboratory, Ballistic Research Laboratories, Aberdeen Proving Ground, Aberdeen, Maryland.

Dr. David B. Duncan has recently resigned his position as Professor of Statistics at Virginia Polytechnic Institute, Blacksburg, Virginia. He has accepted an appointment as Statistical Consultant in the Statistical Laboratory and Professor of Agronomy (statistics) at the University of Florida, Gainesville, Florida.

A. Ross Eckler received his Ph. D. degree from Princeton University in June 1954 and is a member of the Technical Staff, Bell Telephone Laboratories, Whippany, New Jersey.

W. T. Federer is on sabbatical leave from Cornell University for the period September 1954 to September 1955 and is working with researchers on their experiments, doing routine consulting and solving various statistical problems, at the Experiment Station of the Hawaiian Sugar Planters' Association and the Pineapple Research Institute.

Charles F. Federspiel will spend the academic year 1954-55 doing graduate work at the Institute of Statistics, Raleigh, North Carolina.

John E. Freund is spending this year as a visiting professor in the Department of Statistics, Virginia Polytechnic Institute.

H. H. Goode has been appointed Professor in the Electrical Engineering Department of the University of Michigan in addition to his duties as Director of the Willow Run Research Center and Assistant Director of the Engineering Research Institute.

W. J. Hall, having returned from a year's study in England as a Fulbright Scholar, completed the Ph. D. requirements in statistics at the University of North Carolina in September and is now a member of the technical staff, Bell Telephone Laboratories, New York.

D. G. Hays, candidate for Ph. D. in Sociology at Harvard University, is conducting research on stochastic models for social interaction while a Fellow of the Center for Advanced Study in the Behavioral Sciences, Menlo Park, California.

Roger Heimlich, formerly Research Assistant and Graduate Student, Purdue University, has received a commission in the U. S. Public Health Service and is serving in the Statistics Section, Epidemiology Branch of the Communicable Disease Center, Atlanta, Georgia.

J. Stuart Hunter has obtained his Ph. D. degree in Experimental Statistics, Institute of Statistics, North Carolina State College in June 1954, and is presently employed as an Experimental Statistician by the American Cyanamid Company, New York.

Koichi Ito is spending the 1954-55 academic year at the Institute of Statistics, University of North Carolina after receiving his Ph. D. from St. Louis University.

Dr. C. H. Kraft of Michigan State College has been appointed to an Acting Assistant Professorship at the University of California.

D. V. Lindley is on leave from Cambridge University for the academic year 1954-55 and holds an Assistant Professorship in the Committee on Statistics, University of Chicago for this period.

Dean L. Lindstrom, formerly at the Statistical Laboratory, Purdue University, is now employed as Senior Aerophysics Engineer at the Fort Worth Division of Convair.

Allen L. Mayerson, Principal Actuary of the New York State Insurance Department, has taken a year's leave of absence to study at the University of Paris. Mr. Mayerson has been granted a Fulbright scholarship to study mathematical statistics and applications to actuarial work. His studies will be principally concerned with the Theory of Risk as developed by European Actuaries and Statisticians. Mr. Mayerson has recently been elected a member of the Association des Actuaires Suisses and of the Instituto de Actuarios Espanoles.

Professor Frederick Mosteller, Harvard University, has been awarded a Fund for the Advancement of Education Fellowship for 1954-55 and is visiting the Committee on Statistics, University of Chicago.

Peter G. Moore has returned to a lectureship at University College, London after spending a year at Princeton University as a Commonwealth Fund Fellow.

Mervin Muller has spent the past academic year as a Fellow in Mathematics at the National Bureau of Standards, Institute for Numerical Analysis, University of California, Los Angeles and upon completion of his Ph. D. in August has accepted appointment as Instructor, Mathematics Department, Cornell University.

Sidney I. Neuwirth, formerly affiliated with the Committee on Research of the American Medical Association, Chicago, has accepted the position of Director of the Statistics Division at the Mutual Insurance Advisory Association, New York.

Monroe L. Norden, a Senior Associate of Dunlap and Associates, Inc., Stamford, Connecticut, has been appointed as Engineering Scientist in the Statistical Research and Consulting Group of the Research Division of the College of Engineering, New York University, to work on problems centering about Design of Experiments, Operations Research and the statistical problems that arise in the many engineering problems which involve the representation of physical processes by stochastic processes.

Boyd Z. Palmer, formerly with the American Friends Service Committee, is now employed as a statistician in the Quality Control Department, Timken Roller Bearing Company.

Stanley Reiter, formerly a member of the staff at Stanford University, has been appointed Assistant Professor of Economics and Mathematics at Purdue University.

Donald L. Richter, following a tour of duty with the U. S. Army, has resumed his studies in the Department of Statistics, University of North Carolina.

Robert L. Rogers is now serving as Statistician of Pictsweet Foods, Inc. of Mt. Vernon, Washington, a division of Stokely-Van Camp.

Dr. Jacques St.-Pierre having completed 3 years of graduate work at the Institute of Statistics, University of North Carolina, has returned to Université de Montréal. He will be in charge of the recently organized Center of Statistics.

Marion M. Sandomire left the Atomic Energy Commission, upon the move of its New York Office to Oak Ridge, and has become Staff Statistician at the U. S. Naval Radiological Defense Laboratory in San Francisco.

Dr. Morris Skibinsky, who received his degree in 1954 from the University of North Carolina, Chapel Hill, has been appointed Research Associate in the Statistical Laboratory, Purdue University.

George W. Snedecor will serve as a consultant in experimental statistics for the Institute of Statistics, Consolidated University of North Carolina, for 4 months beginning January 1955.

Richard H. Titman, formerly with the General Electric Company, Richland, Washington, has accepted the position of research Engineer with the Operations Analysis Group of CONVAIR, Division of General Dynamics Corporation, San Diego.

William Van der Bijl, Meteorologist, Research Associate on leave from Royal Netherlands Meteorological Institute, has been granted a Postdoctoral Award for Study in Statistics for the year 1954-55 by the Committee on Statistics of the University of Chicago.

David Lee Wallace, formerly Moore Instructor in Mathematics, Massachusetts Institute of Technology, has been appointed Assistant Professor of Statistics in the Committee on Statistics at the University of Chicago.

Sidney Weiner is employed as Analytical Statistician with Aeronautical Radio Inc., Washington, D. C.

John R. B. Whittlesey, formerly a graduate student at the Institute of Statistics, Chapel Hill, North Carolina, is now a private in the Army, working as an Instrumentation Analyst with the Aberdeen Bombing Mission, Edwards Air Force Base, Edwards, California.

Dr. Max A. Woodbury has been granted leave from the University of Pennsylvania and will serve as Principal Investigator of the Logistics Research Project (ONR), The George Washington University, Washington, D. C. for the coming year.

New Members

The following persons have been elected to membership in the Institute

August 10, 1954 to November 16, 1954

- Beckhart, Ann S.** (Mrs. G. H.), B.A. (Vassar College), Graduate Student, Rutgers University, 1019 Sycamore Street, Haddon Heights, New Jersey.
- Beckhart, G. H.**, A.B. (Princeton), Graduate Student, Rutgers University, 1019 Sycamore Street, Haddon Heights, New Jersey.
- Brown, Byron W., Jr.**, B.A. (Univ. of Minnesota), Instructor, Biostatistics Division, Department of Public Health, University of Minnesota, Minneapolis 14, Minnesota, Q 179 "U" Village, Minneapolis 14, Minnesota
- Carter, Richard Leston**, M.S. (Southern Methodist Univ.), Graduate Student, University of North Carolina, Chapel Hill, North Carolina, Rt. #3, Box 381, Chapel Hill, North Carolina.
- Chasen, Sylvan H.**, M.S. (Emory Univ.), Supervisory Mathematician, United States Navy (Naval Air Test Center), Patuxent River, Maryland, Town Creek Manor, California, Maryland.
- Cox, D. R.**, Ph.D. (Univ. of Leeds), Assistant Lecturer in Mathematics, Statistical Laboratory, University of Cambridge, St. Andrew's Hill, Cambridge, United Kingdom.
- Gupta, Shanti Swarup**, M.A. (Delhi Univ.), Research Assistant and Graduate Student, Institute of Statistics, University of North Carolina, Chapel Hill, North Carolina.
- Horberg, Arthur**, M.S. (DePaul Univ.), Junior Mathematician, Institute for Air Weapons Research, University of Chicago, Museum of Science and Industry, Chicago 37, Illinois, 9640 S. Chappel Avenue, Chicago 17, Illinois.
- Karlin, Samuel**, Ph.D. (Princeton Univ.), Associate Professor of Mathematics, California Institute of Technology, Pasadena, California. Temporary, academic year 1954-55: Stanford University, Statistics Department, Stanford, California.
- Kawata, Tatsuo**, Ph.D. (Tohoku Univ.), Professor of Mathematics, Tokyo Institute of Technology, Meguro-ku Oh-Okayama, Tokyo, Japan.
- Lasman, Lonnie L.**, B.A. (Univ. of Minnesota), Graduate student, University of Minnesota, Minneapolis 14, Minnesota and Research Assistant, Department of Agricultural Economics, Institute of Agriculture, University of Minnesota, St. Paul 8, Minnesota, 1358 Kenneth, St. Paul 2, Minnesota.
- McFeely, Franklin S.**, M.A. (Bucknell Univ.), Graduate Research Assistant in Statistics, Department of Statistics, Virginia Polytechnic Institute, Blacksburg, Virginia.
- Maruyama, Gisiro**, Ph.D. (Kyusyu Univ.), Professor, Department of Mathematics, Ochanomizu University, 35 Otsuka-machi Bunkyo-ku, Tokyo, Japan.
- Murty, V. N.**, M.A. (Andhra Univ.), Graduate Student, 404 Connor Dormitory, Chapel Hill, North Carolina.
- O'Connor, Aloysius J.**, Sign writer, Schenectady Sign Service, 834 State Street, Schenectady, New York, 1344 Santa Fe Street, Schenectady, New York.
- Sukhatme, Balkrishna V.**, M.A. (Delhi Univ.), Research Assistant and Graduate Student, Statistical Laboratory, Department of Mathematics, University of California, Berkeley 4, California.
- Switzer, Duane R.**, B.S. (Case Inst.), Graduate Student, Western Reserve University, Department of Statistics, Dr. W. D. Berretoni, University Circle, Cleveland, Ohio, 5328 Cato Street, Maple Heights, Ohio.
- Udagawa, Masatomo**, Ph.D. (Univ. of Tohoku), Assistant Professor, Faculty of Science in Tokyo Educational University, Otsuka Bunkyo-ku, Tokyo, Japan.
- Ugaheri, Tadashi**, Ph.D. (Tokyo Univ.), Assistant Professor, Tokyo Institute of Technology, O-Okayama Meguro-ku, Tokyo, Japan.

Cooperative Graduate Summer Sessions in Statistics

The University of Florida, North Carolina State College, Virginia Polytechnic Institute and the Southern Regional Education Board are jointly sponsoring a series of cooperative summer sessions in statistics.

The first of these cooperative summer sessions was held during the summer of 1954 at Virginia Polytechnic Institute and the second session will be held at the University of Florida, June 20 to July 29, 1955. A session is scheduled to be held at North Carolina State College in 1956 and another at Virginia Polytechnic Institute in 1957. Each summer session will last six weeks and each course will carry approximately three semester hours of graduate credit.

The faculty for 1955 session at the University of Florida will include: Professor R. L. Anderson, North Carolina State College; Professor D. B. Duncan, University of Florida; Professor Boyd Harshbarger, Virginia Polytechnic Institute; Professor Carl E. Marshall, Oklahoma A. and M. College; Professor Herbert A. Meyer, University of Florida; Professor George E. Nicholson, Jr., University of North Carolina; Professor Phillip J. Rulon, Harvard University; Professor Walter L. Smith, University of North Carolina; and Professor Dudley E. South, University of Florida.

Courses to be offered this summer are: Statistical Methods I, Statistical Methods II (Design of Experiments), Statistical Theory I, Statistical Theory II (Inference and Least Squares), Advanced Analysis I, Theory of Sampling, Theory of Statistical Inference, Mathematics for Statistics, Statistical Research in Education and Psychology and Seminar on Recent Advances in Statistics.

Inquiries should be addressed to:

Professor Herbert A. Meyer
Statistical Laboratory
University of Florida
Gainesville, Florida

Summer Sessions at Berkeley, California

This year's program at the Statistical Laboratory of the University of California, Berkeley, California, consists of two sessions: June 20–July 30 and August 1–September 10, 1955. The faculty of the summer sessions will include Professor G. E. Bates of Mt. Holyoke College, South Hadley, Massachusetts; Professor J. Neyman, Professor Charles H. Kraft and Mr. Howard G. Tucker of the Statistical Laboratory, University of California.

The program includes undergraduate courses primarily meant for students transferring from other centers who would like to embark on advanced studies in Berkeley during the regular academic year. Professor Neyman will be available for consultations on work leading to higher degrees. There will be no graduate course program. However, graduate students may be interested in a series of lectures and seminars to be given through July and August in connection with the second part of the Third Berkeley Symposium on Mathematical Statistics and

Probability. The scholars who promised to participate in this event are: T. W. Anderson, Columbia University, M. S. Bartlett, University of Manchester, J. Berkson, Mayo Clinic, David Blackwell, Howard University and University of California, A. J. L. Blanc-Lapierre, Université d'Alger, J. Doob, University of Illinois, W. Feller, Princeton University, R. Fortet, Institut Henri Poincaré, A. Girshick, Stanford University, J. M. Hammersley, Oxford University, J. L. Hodges, Jr., University of California, W. Hoeffding, University of North Carolina, Lucien LeCam, University of California, Erich L. Lehmann, University of California, P. Lévy, l'École Polytechnique, H. Robbins, Columbia University, Herman Rubin, Stanford University, and C. M. Stein, Stanford University.

REPORT OF THE IOWA CITY MEETING OF THE INSTITUTE OF MATHEMATICAL STATISTICS

The sixty-third meeting, a Central Regional meeting, of the Institute of Mathematical Statistics was held at the State University of Iowa, Iowa City, Iowa, on November 26–27, 1954. The meeting was in conjunction with a meeting of the American Mathematical Society. An address entitled *Results of Functions Analytic in a Half Plane and Their Applications to Moments and Distribution Functions* was presented by Professor R. P. Boas, Northwestern University.

The following 29 members of the Institute attended:

F. C. Andrews, I. W. Burr, A. T. Craig, E. L. Crow, J. E. Folkert, W. A. Golomski, L. A. Goodman, J. Gurland, W. W. Gutzman, H. O. Hartley, J. L. Harter, R. V. Hogg, E. H. Jebe, R. J. Jensen, L. Katz, J. H. B. Kemperman, O. Kempthorne, L. A. Knowler, C. F. Kossack, R. M. Kozelka, W. Kruskal, D. V. Lindley, F. W. Lott, Mrs. M. D. Lum, M. R. Mickey, W. C. Ross, Jr., R. Stephens, J. Waksberg, and D. L. Wallace.

The program of the meeting was as follows:

FRIDAY, NOVEMBER 26, 1954

9:00–10:20 a.m. Contributed Papers

Chairman: LEO A. GOODMAN, University of Chicago

- (1) *The Distribution of the Number of Components of a Random Mapping Function, Preliminary Report*, LEO KATZ, Michigan State College, and JAY E. FOLKERT, Michigan State College and Hope College
- (2) *Approximate Sequential Tests for Hypotheses about the Proportion of a Normal Population to One Side of a Given Number*, WILLIAM KRUSKAL, University of Chicago
- (3) *A Note on Some Limit Theorems in Probability Theory*, JOHN GURLAND, Iowa State College
- (4) *Uniqueness of Latin Square Association Schemes for Partially Balanced Incomplete Block Designs, Preliminary Report* (By title), D. M. MESNER, Purdue University
- (5) *On Bounds for the Normal Integral* (By title), J. T. CHU, University of North Carolina

2:00–3:00 p.m. Address

Chairman: JOHN GURLAND, Iowa State College

- (1) *Results on Functions Analytic in a Half Plane and Their Applications to Moments and Distribution Functions*, R. P. BOAS, Northwestern University

3:15–5:30 p.m. Sampling Surveys

Chairman: LEO A. GOODMAN, University of Chicago

- (1) *Precision of Unbiased Ratio Estimates*, H. O. HARTLEY, Iowa State College
 (2) *Some Finite Population Unbiased Ratio and Regression Estimators*, R. M. MICKY, Iowa State College
 (3) *Some Methods of Estimation of Variances for Complex Sample Designs*, J. WAKSBURG, Bureau of the Census

SATURDAY, NOVEMBER 27, 1954**9:30–11:45 a.m. Industrial Statistics**

Chairman: IRVING W. BURR, Purdue University

- (1) *On Tolerance Limits*, J. H. B. KEMPERMAN, Purdue University
 (2) *Contagious Distributions and Their Potential Use in Industry*, LEO KATZ, Michigan State College
 (3) *The Location of Optimum Operating Conditions*, DAVID L. WALLACE, University of Chicago

1:00–3:15 p.m. Estimation of Error in Experiments

Chairman: CARL F. KOSSACK, Purdue University

- (1) *Linear Models*, O. KEMPTHORNE, Iowa State College
 (2) *Interactions with Experimental Units*, M. B. WILK, Iowa State College
 (3) *Rules for Determining Error Terms in Hierarchical and Partially Hierarchical Models*, MARY LUM, Wright Air Development Center

Discussion: L. HARTER, Wright Air Development Center

WILLIAM KRUSKAL
Associate Secretary

REPORT OF THE BERKELEY MEETING OF THE INSTITUTE OF MATHEMATICAL STATISTICS

December 27–30

The sixty-fourth meeting of the Institute of Mathematical Statistics and the seventeenth annual meeting was held at the University of California, Berkeley, California, on December 27–30, 1954 in conjunction with the national annual meeting of the American Association for the Advancement of Science. All sessions of the Institute of Mathematical Statistics were joint with Section A of the AAAS. A number of sessions were joint with the American Statistical Association, the American Statistical Association-Committee on Statistics in the Physical Sciences, American Physical Society, Astronomical Society of the Pacific, Biometric Society-Western North American Region, Ecological Society of

America, Philosophy of Science Association, Western Psychological Association, American Association for the Advancement of Science, Section A—Mathematics, Section B—Physics, Section D—Astronomy, Section I—Psychology, Section L—History and Philosophy of Science, Section M—Engineering, Section N—Medical Sciences, Section Q—Education and the Third Berkeley Symposium on Mathematical Statistics and Probability. The following members of the Institute attended:

Israel J. Abrams, Forman S. Acton, Om P. Aggarwal, T. W. Anderson, Kenneth J. Arnold, George A. Baker, Edward W. Barankin, Grace E. Bates, Joseph Berkson, Robert A. Bieber, Allan Birnbaum, Z. W. Birnbaum, David Blackwell, Julius R. Blum, Charles H. Boll, A. H. Bowker, Bernice Brown, H. D. Brunk, Herman Chernoff, C. L. Chiang, John T. Chu, Randolph Church, C. West Churchman, Charles R. Clark, Kermit G. Clemans, Edward P. Coleman, William D. Commins, Arnold Court, L. M. Court, Edwin L. Crow, Joseph F. Daly, Cuthbert Daniel, R. C. Davis, Robert Dorfman, F. W. Dresch, W. J. Dixon, John A. Dudman, Mary Elveback, Benjamin Epstein, James D. Esary, Mark W. Eudey, Edward A. Fay, Thomas Ferguson, Evelyn Fix, Martin Fox, William R. Gaffey, Robert S. Gardner, David W. Gaylor, G. E. Ghormley, Edgar J. Gilbert, E. S. Gordon, Clayborn L. Graves, Harris T. Guard, John Gurland, Harry H. Harman, T. E. Harris, David G. Hays, Warren M. Hirsch, Paul G. Hoel, William C. Hoffman, Joseph L. Hodges, Jr., J. P. Imhof, Stanley Isaacson, R. F. Jarrett, T. A. Jeeves, Walter Jennings, Mark Kac, Williams E. Kane, Samuel Karlin, Leo Katz, H. Konijn, Lambert H. Koopmans, Charles H. Kraft, Martin Karkowski, William Kruskal, Lucien LeCam, Erich L. Lehmann, R. A. Leibler, Roy Leipnik, Gerald J. Lieberman, Julius Lieblein, Richard F. Link, Arvid Lonseth, D. C. Lowry, E. Lukacs, Mary D. Lum, R. K. Maggy, F. Massey, Donald F. Mela, A. M. Mood, Roger A. Moore, L. E. Moses, Frederick Mosteller, J. Neyman, Edwin G. Olds, Donald B. Owen, Toby Oxtoby, Woodrew W. Page, Emanuel Parzen, J. Putter, Robert Putz, K. V. Ramachandran, Bayard Rankin, A. T. Bharucha-Reid, Robert Read, Mina Rees, George J. Resnikoff, Paul R. Rider, William L. Roach, Harry G. Romig, M. Rosenblatt, A. R. Roy, Herman Rubin, David Rubinstein, Jagdish S. Rustagi, Marion M. Sandomire, A. E. Sarhan, Richard Savage, Henry Scheffé, Lorraine Schwartz, Arthur Shapiro, Milton Sobel, Herbert Solomon, Melvin D. Springer, George P. Steck, Charles M. Stein, Margaret D. Stein, David S. Stoller, B. V. Sukhatme, Joseph V. Talacko, William F. Taylor, Henry Teicher, D. Teichroew, A. J. Thomasian, Fred H. Tingey, Donald R. Truax, Howard G. Tucker, William Vanderbyl, Sidney Weiner, Irving Weiss, Oscar Wesler, John R. B. Whittlesey, Alvin D. Wiggins, S. S. Wilks, Max A. Woodbury, J. Yerushalmy, Royal K. Zeigler.

The program follows:

MONDAY, DECEMBER 27, 1954

9:00 a.m. Statistics in Biology and Genetics—With Third Berkeley Symposium, Biometric Society (WNAR), Section A of AAAS, American Statistical Association, and Ecological Society of America

- Chairman: Roy E. Clausen, University of California
 Papers: 1. *Struggle for Existence*, Thomas Park, University of Chicago; Jerzy Neyman and Elizabeth L. Scott, University of California.
 2. *Some Genetic Problems in Controlled Populations*, Everett Dempster, University of California.

3. *Some Genetic Problems in Natural Populations*, James Crow and Motoo Kimura, University of Wisconsin

9:00 a.m. Applications of Poisson and Exponential Distributions to Physics and Industry—With American Statistical Association and Section A of AAAS

Chairman: Stanley Isaacson, Iowa State College

- Papers:
1. *Estimates of Bounded Relative Errors for the Poisson and Other Parameters*, Meyer A. Girshick, Stanford University. (Presented by Herman Rubin, Stanford University.)
 2. *On Estimating the Mean Life of a Radioactive Source*, Richard F. Link, Sandia Corporation
 3. *Survey of Some New Techniques in Lifetesting when the Underlying Distribution is Exponential*, Benjamin Epstein, Wayne University
 4. *Inference Problems in Poisson Processes*, Allan Birnbaum, Columbia University

1:30 p.m. Statistical Mechanics—With Third Berkeley Symposium, American Statistical Association, American Physical Society and Sections A and B of AAAS

Chairman: Mina Rees, Hunter College

- Papers:
1. *Hopf-Wiener Equation Systems and Matrix Factorization*, Norbert Wiener, Massachusetts Institute of Technology
 2. *Foundation of Kinetic Theory of Gases*, Mark Kac, Cornell University
 3. *Effect of Dimensionality on Long Range Order in Crystals*, Elliott Montroll, Office of Naval Research

1:30 p.m. Design of Experiments in Fisheries Work—With Biometric Society (WNAR), and Section A of AAAS

Chairman: Richard Van Cleve, University of Washington

- Papers:
1. *Biological Assumptions Involved in Estimating Mortalities to Downstream Migrant Salmon Passing Dams*, Charles O. Junge, Jr., Washington State Department of Fisheries
 2. *Use of Logbook Data in the Measurement of Distribution and Abundance of Commercial Fish Stocks*, M. B. Schaefer, Inter-American Tropical Tuna Commission
 3. *Some Remarks on the Design of a Sampling Program of a Fishery for a Measure of Fishing Intensity*, T. M. Widrig, U. S. Fish and Wildlife Service

4:00 p.m. Special Invited Paper—With Third Berkeley Symposium

Chairman: T. E. Harris, Rand Corporation

- Paper: *Large Sample Theory in the Parametric Case*, Herman Chernoff, Stanford University

8:00 p.m. 1954 Council Meeting

President: Edwin G. Olds, Carnegie Institute of Technology

TUESDAY, DECEMBER 28, 1954**9:00 a.m. Statistics in Medicine and Public Health—With Third Berkeley Symposium, American Statistical Association, Biometric Society (WNA), and Sections A and N of AAAS**

Chairman: Charles E. Smith, University of California

Papers: 1. *Problems of Contagion*, William F. Taylor, School of Aviation Medicine
 2. *Statistical Problems in Medical Diagnoses*, Chin L. Chiang, J. L. Hodges, Jr. and Jacob Yerushalmy, University of California
 3. *Some Statistical Problems Arising from Retrospective Studies*, Jerome Cornfield, National Institute of Health

Discussion: Albert T. Reid, Columbia University, Ahmed E. Sarhan, University of North Carolina

9:00 a.m. Principle of Invariance—With Third Berkeley Symposium and Section A of AAAS

Chairman: Erich L. Lehmann, University of California

Papers: 1. *Canonical Representation of an Invariant Decision Problem*, Meyer A. Girshick, Stanford University. (Presented by Herman Rubin, Stanford University)
 2. *Generalized Hunt-Stein Theorem*, Herman Rubin, Stanford University
 3. *Admissibility of Invariant Decision Procedures*, Charles M. Stein, Stanford University

1:30 p.m. Invited Address—With Third Berkeley Symposium

Chairman: Henry Scheffé, University of California

Paper: *On Some Problems Arising in the Spectral and Regression Analysis of Time Series*, Murray Rosenblatt, University of Chicago

1:30 p.m. Statistics in Astronomy: The Spatial Distribution of Galaxies—With Third Berkeley Symposium, Astronomical Society of the Pacific, and Sections A and D of AAAS

Chairman: Joel Stebbins, Lick Observatory

Papers: 1. *Statistics of Cluster of Galaxies—Distribution of Centers, Angular Dimensions, Structure, Luminosity Function of Member Galaxies*, Fritz Zwicky, Mount Wilson and Palomar Observatories
 2. *Statistics of Images of Galaxies with Particular Reference to Clustering*, Jerzy Neyman and Elizabeth L. Scott, University of California; C. Donald Shane, Lick Observatory
 3. *Galaxies, Statistics and Relativity*, George C. McVittie, University of Illinois

2:30 p.m. Invited Papers

Chairman: Edwin G. Olds, Carnegie Institute of Technology

Papers: 1. *Random Variables and the General Theory of Variables*, Karl Menger, Illinois Institute of Technology
 2. *Multi-Stage Decision Procedures*, Meyer A. Girshick, Stanford University

sity, Samuel Karlin, California Institute of Technology and Stanford University and H. L. Royden, Stanford University

4:00 p.m. Contributed Papers I

- Chairman: Paul G. Hoel, University of California, Los Angeles
 Papers:
1. *Maximum Likelihood Estimates of Monotone Parameters*, H. D. Brunk, University of Missouri
 2. *Extension of Certain Classes of Contagious Distributions*, John Gurland, Iowa State College
 3. *Recurrent Markov Processes II, Preliminary Report*, T. E. Harris, Rand Corporation
 4. *The Role of Perks' Distribution in the Theory of Wiener's Stochastic Function*, Joseph Talacko, Marquette University and University of California
 5. *On the Orthogonality of Measures and the Existence of Consistent Tests*, Charles Kraft, University of California
 6. *The Minimax Character of the Neyman-Pearson Critical Region*, L. M. Court, Diamond Ordnance Fuze Laboratories
 7. *On the Existence of Linear Regressions*, T. S. Ferguson, University of California
 8. *On the Asymptotic Distribution of U-Statistics Modified by the Introduction of Estimates of Parameters, Preliminary Report*, B. V. Sukhatme, University of California
 9. *Essentially Complete Classes of Experiments*, Sylvain Ehrenfeld, New York City. (By title)
 10. *A Theorem on Uniform Convergence of Families of Sequences of Random Variables*, Emanuel Parzen, Columbia University. (By title)
 11. *Decision Procedures for the Comparison of Exponential Populations*, F. S. McFeely and J. E. Freund, Virginia Polytechnic Institute. (By title)
 12. *The Efficiency of some Nonparametric Competitors of the t-Test*, J. L. Hodges, Jr. and E. L. Lehmann, University of California. (By title)

8:00 p.m. AAAS Presidential Address

- Address: *A Half Century of Quantum Physics*, E. U. Condon, Director of Research, Corning Glass Works, and Retiring President, AAAS.

WEDNESDAY, DECEMBER 29, 1954

9:00 a.m. Special Invited Paper—With Third Berkeley Symposium

- Chairman: David Blackwell, Howard University and University of California
 Paper: *Probabilistic Treatment of Phenomena: Stochastic Models and Interpolatory Formulae*, Jerzy Neyman, University of California

10:00 a.m. Probability and Induction—With Third Berkeley Symposium, American Statistical Association, Philosophy of Science Association, and Sections A and L of AAAS

- Chairman: William R. Dennes, University of California
 Papers: 1. *Problems of Values in Relation to Induction*, C. West Churchman, Case Institute of Technology

2. *The Measurement of Utility and Subjective Probability*, Patrick C. Suppes, Stanford University
3. *Toward an Objectivistic Theory of Probability*, Edward W. Barankin, University of California
4. *Inference from Confidence Limits and from Standard Errors*, Joseph Berkson, Mayo Clinic

1:30 p.m. Comparison of Experiments—With Third Berkeley Symposium and Section A of AAAS

Chairman: Z. William Birnbaum, University of Washington

- Papers:
1. *Introduction*, David Blackwell, Howard University and University of California
 2. *Comparison of Experiments in the Infinite Case and the Use of Invariance in Determining Sufficiency*, Charles Boll, Hughes Aircraft Company
 3. *On the Comparison of Information Provided by Experiments*, Max A. Woodbury, University of Pennsylvania and George Washington University

1:30 p.m. Statistics in Astronomy: The Distribution of Stars in the Hertzsprung-Russell Diagram—With Third Berkeley Symposium, American Statistical Association, Astronomical Society of the Pacific and Sections A and D of AAAS

Chairman: Otto Struve, University of California

- Papers:
1. *The H-R Diagram*, Bengt Stromgren, Yerkes Observatory
 2. *The Spectra and Other Properties of Stars Lying Below the Normal Main Sequence*, Jesse L. Greenstein, California Institute of Technology
 3. *Evidence for Sequences in the Color-Luminosity Relationship for the M-Dwarfs*, Gerald E. Kron, Lick Observatory
 4. *Photoelectric Studies of Stellar Magnitudes and Colors*, Harold Johnson, Lowell Observatory
 5. *Observed Relationships between Luminosity Color and Mass for Stars in the Solar Neighborhood*, Olin Eggen, Lick Observatory

Discussion: Mary Hanania, University of California

4:30 p.m. Contributed Papers II

Chairman: Leo Katz, Michigan State College

- Papers:
1. *Multi-level Continuous Sampling Plans*, Gerald Lieberman, Stanford University, and Herbert Solomon, Teachers College, Columbia University
 2. *Numerical Values for Covariances of Order Statistics for Samples of Size Twenty and Less from the Normal Distribution*, D. Teichroew, University of California
 3. *Estimation of the Parameters of the Rectangular and the Exponential Populations from Singly and Doubly Censored Samples*, A. E. Sarhan, University of North Carolina.
 4. *Estimation from "Censored" Samples of Extreme Data*, Julius Lieblein, National Bureau of Standards
 5. *On the Probability Integral Associated with a Certain Multivariate Test*, K. V. Ramachandran, University of North Carolina
 6. *Some Uses of Quasi-ranges*, J. T. Chu, University of North Carolina

7. *Inadmissibility of the Usual Estimate for the Mean of a Multivariate Normal Distribution*, Charles M. Stein, Stanford University
8. *A Locally Optimal Test for the Independence of two Poisson Variables*, Mohamed S. Ahmed, University of California.
9. *Identification of a Certain Stochastic Structure*, Henry Teicher, Purdue University
10. *Statistical Estimation of the Endurance Limit*, E. J. Gumbel, Columbia University. (By title)
11. *On the Efficiency of Estimates in Successive Multiphase Sampling (Preliminary Report)*, B. D. Tikkiwal, University of North Carolina. (By title)

7:30 p.m. Business meeting

President: Edwin G. Olds, Carnegie Institute of Technology

9:00 p.m. IMS Beer Party—With Section A, AAAS

THURSDAY, DECEMBER 30, 1954

9:00 a.m. Mathematical Statistics—With Third Berkeley Symposium and Section A of AAAS

Chairman: Wilfred J. Dixon, University of Oregon

- Papers:
1. *On the Characterization of Populations by Properties of Suitable Statistics*, Eugene Lukacs, Office of Naval Research
 2. *Decision Theory for Polya Type Distributions*, Samuel Karlin, California Institute of Technology and Stanford University

10:00 a.m. Statistics in Industrial Research—With Third Berkeley Symposium, American Statistical Association, and Sections A and M of AAAS

Chairman: Fred L. Hotes, University of California

- Papers:
1. *Recent Developments in Sampling Inspection*, Albert H. Bowker, Stanford University
 2. *Statistical Problems of Life Testing*, Milton Sobel, Bell Telephone Laboratories
 3. *Efficient Experimental Design in Industrial Research*, Cuthbert Daniel, New York City

1:30 p.m. Statistics in Psychology—With Third Berkeley Symposium, American Statistical Association, Western Psychological Association, and Sections A, I, and Q of AAAS

Chairman: Joy P. Guilford, University of Southern California

- Papers:
1. *Some Stochastic Models for Learning Theory*, Frederick Mosteller, Harvard University
 2. *Statistical Methods in Psychometric Research*, Herbert Solomon, Columbia University
 3. *Statistical Inference in Factor Analysis*, Theodore W. Anderson, Columbia University

Discussion: Charles O. Neidt, University of Nebraska

1:30 p.m. The Meaning of Probability to the Engineer, Mathematician and Physicist—With American Statistical Association, and Section A of AAAS

- Chairman: H. L. Royden, Stanford University
 Papers: Symposium
 Discussion: 1. David Blackwell, Howard University and University of California
 2. Wendell A. Horning, Ramo Wooldridge Corporation
 3. E. T. Jaynes, Stanford University
 4. H. L. Royden, Stanford University

4:00 p.m. Contributed Papers III

- Chairman: Edward W. Barankin, University of California
 Papers: 1. *Detection and Hypothesis Testing by Linear Methods*, Emanuel Parzen, Columbia University
 2. *Probability of Indecomposability of a Set Under Random Mappings*, Leo Katz, Michigan State College
 3. *On the Near Monotonic Character of the Power Function of a Certain Multivariate Test*, S. N. Roy and K. V. Ramachandran, University of North Carolina
 4. *Simultaneous Distribution of the Mean, Standard Deviation, and Range for Probability Density Functions of Doubly Infinite Range, Preliminary Report*, Melvin D. Springer, U. S. Naval Ordnance
 5. *A Class of Asymptotic Tests of Composite Hypotheses*, J. Neyman, University of California
 6. *The Transitions of a Markovian Process from Set to Set*, Bayard Rankin, Massachusetts Institute of Technology
 7. *Confidence Intervals for the Ratio and for the Difference of Two Probabilities, Preliminary Report*, R. R. Bahadur and W. H. Kruskal, University of Chicago
 8. *Limit Theorems for Conditional Distributions*, G. P. Steck, University of California
 9. *Tests of Contagion and Time Effect in Accident Proneness, Preliminary Report*, Howard Tucker, University of California
 10. *Chi Square Test of Goodness of Fit for a Class of Cases of Dependent Observations*, Joseph Putter, University of California
 11. *Approximate Probability Values for Observed Number of Successes from Statistically Independent Binomial Events with Unequal Probabilities*, John E. Walsh, Lockheed Aircraft Corporation. (By title)

6:30 p.m. Dinner of Mathematicians and Statisticians— With Third Berkeley Symposium and Section A of AAAS

- Speaker: Charles B. Tompkins, University of California, Los Angeles

4:00 p.m. 1955 Council Meeting

- President: Henry Scheffé, University of California, Berkeley

T. A. JEEVES
 Assistant Secretary

MINUTES OF THE ANNUAL BUSINESS MEETING, 1954

The meeting was called to order by President E. G. Olds at 7:30 P.M. in Room 117 Dwinelle Hall, University of California, Berkeley, California.

The minutes of the business meeting of September 12, 1954 were read by the Secretary. The minutes were approved as read.

Ballots for the election of a President-Elect, for the election of five members of the Council and for voting on an amendment to the Constitution were collected and the tellers retired to determine the results. The results were, after adjournment of the business meeting, announced as follows:

David Blackwell was elected President-Elect for 1955, President for 1956.

R. L. Anderson, Leo Goodman, P. G. Hoel, L. J. Savage and Herbert Solomon were elected to the Council for the term January 1, 1955 to December 31, 1957.

The motion to amend the constitution passed. The second paragraph of Article 9 of the constitution was thereby amended by replacing the phrase, "The publications of the Institute" by "The publication of the official journal." The wording of Article 9 is therefore:

The Annals of Mathematical Statistics shall be the official journal of the Institute. Other publications may be authorized by the Council.

The publication of the official journal shall be supervised by the Editor, with the assistance of the Associate Editors and such committees as the Council may approve.

The Secretary reported the recommendation of the Council that the membership amend the first sentence of the fourth paragraph of Article 1 of the Bylaws by deleting the word "whether" and by deleting the phrase "or to other publications". The Secretary moved the adoption of this amendment. The motion was seconded and carried. The fourth paragraph of Article 1 of the Bylaws now therefore reads:

The Editor, subject to the direction of the Council, shall have charge of all editorial matters relating to the official journal. He shall, with the advice and consent of the Council, appoint an Editorial Committee of not less than twelve members to cooperate with him for definite terms. All appointments to the Editorial Committee shall terminate with the appointment of a new Editor.

The President submitted his report for the year 1954.¹

The Secretary submitted his report for the year 1954.²

The Treasurer submitted an informal report and announced that a formal report would be submitted after the close of the year.

The Editor submitted his report for the year 1954.³

The Program Coordinator submitted an informal report on plans for meetings during 1955.

The incoming President was introduced and took the chair. He said it would

¹ The report of the President appears on page 179 in this issue of the *Annals*.

² The report of the Secretary appears on page 186 in this issue of the *Annals*.

³ The report of the Editor appears on page 187 in this issue of the *Annals*.

be very difficult to meet the high standards set by his predecessor. He remarked that only the Executive Committee knew how much the retiring President had given of himself. He expressed their appreciation.

President Scheffé called for any new business.

After a very brief discussion of matters related to the business of the Institute, a motion to adjourn was made, seconded and carried and the meeting adjourned at 8:20 P.M.

REPORT OF THE PRESIDENT OF THE INSTITUTE FOR 1954

The names of the members, who have served the Institute in various official capacities during the past year, appear at the close of this report. To all these, and to the many other members who have given their unselfish help, I wish to express my deep appreciation on behalf of the Institute. Furthermore, I offer them my personal thanks for the aid, encouragement and sound advice they have given me.

Because of the efforts of the above-mentioned members the Institute has continued to fulfill its purposes as "a society for encouraging the development, dissemination and application of mathematical statistics", as set forth in its constitution. Our official journal has maintained and enhanced its high reputation. Excellent programs have been presented at our national meeting in Montreal and Berkeley, and at our sectional meetings in Ithaca, Gainesville, Pasadena and Iowa City. Committees have been exploring the opportunities for new activities which promise to be of help to our cause. The funds to support our various services have been carefully nurtured and our sound financial position has been buttressed by prudent investments.

The above statement briefly summarizes the successful work of the Institute for 1954. The remainder of my report will supply more specific information regarding the various contributions which helped to insure this success.

As noted by M. H. Hansen in the President's Report for 1953, the Editor and Secretary-Treasurer bear the brunt of the work of the Institute. While the Associate Editors and Cooperating Members of the Editorial Board richly deserve recognition, it must be clear to all that the major responsibility for the *Annals* belongs to E. L. Lehmann himself. In addition to this constant load, the Editor has served as an official member of several committees.

K. J. Arnold carried two burdens, as the secretary and also as the treasurer; either one of these would have strained an ordinary person. Also, he has been a member of six committees, and as chairman of the Committee to Prepare a Manual for the Guidance of Officers he has made a signal contribution to the efficient operation of the Institute. Through his efforts the officers of the Institute have been supplied with a codification of Council actions and a description of the functions of standing committees, together with a list of past officers, Rietz lecturers and other official representatives, in a form for ready reference.

This has been a year when the members of the Council should be publicly com-

mended for an unusual quantity and quality of labor on behalf of the Institute. In addition to their deliberation, at three formal meetings, Council members have been called upon to discuss and settle many matters by correspondence. Their prompt, yet careful, consideration of problems, which at times demanded almost daily attention, should not go unmarked.

Leo Katz, the Program Coordinator, has been a member of all of the program committees, besides serving as Chairman of the Program Committee for the annual meeting. His unselfish contribution of time and energy deserves special recognition.

D. B. DeLury, R. A. Bradley, D. A. Darling and T. E. Harris carried program responsibilities as chairmen for the Montreal meeting, and Eastern, Central and Western regional meetings respectively. Elizabeth Scott was vice-chairman for the meeting at Berkeley. For the success of the meetings in their respective areas, Associate Secretaries Lionel Weiss, William Kruskal and Evelyn Fix deserve much credit. Furthermore, the work of the various assistant Secretaries should not be overlooked.

Discussion of meetings should include mention of the work of Leo Goodman's Committee in arranging for special invited addresses and of the gratitude of the Institute to the men who delivered the addresses. The list for 1954 was as follows:

Summer Meeting: W. Hoeffding, "Non-Parametric Large Sample Theory"

Annual Meeting: H. Chernoff, "Large Sample Theory in the Parametric Case"

Annual Meeting: J. Neyman, "Probabilistic Treatment of Phenomena: Stochastic Models and Interpolatory Formulae."

(Arrangements for the last-mentioned address were made by the 1953 Committee.)

The steady growth of the Institute is fostered by the work of the promotional committees. For his Committee on Individual Memberships, W. D. Baten reports the addition of 62 new members.

Upon recommendation of the Rietz Lecture Committee, the Council approved the appointment of Will Feller as the next Rietz Lecturer. His lecture is planned for 1955.

B. F. Kimball and his Committee on Professional Standards of Statisticians in Government Service are making a survey of required qualifications, salaries, and duties for this group. A comprehensive report is contemplated.

The Editorial Committee for the Publication of Wald's Selected Papers, under the chairmanship of T. W. Anderson, Jr. has completed its work and early publication by the McGraw-Hill Company has been scheduled.

Late in 1953, J. Neyman agreed to take the chairmanship for a Committee to plan for a summer statistical institute. The report of this Committee was received and approved by the Council at the Montreal meeting. Following a recommendation made in the report, a Committee was appointed to prepare detailed plans for a statistical institute to be held in the summer of 1955 at Berkeley. This Committee, consisting of D. H. Blackwell, T. E. Harris, and H. E. Robbins, probably will be ready to report to the membership in the near future.

In contrast to its condition in the lean years of youth, the Institute now finds

itself with a modest surplus for investment. The Treasurer, with the advice of Mortimer Spiegelman's Finance Committee, has been making an effort to find sound and profitable repositories for all funds not needed for immediate expenses.

Late in 1953, a Committee on Activities and Development was appointed with A. H. Bowker as Chairman. This Committee has proposed that the Institute cooperate in the publication of a series of statistical research monographs.

Some of our members have expressed the wish that the scheduling of the annual meeting between Christmas and New Year's could be avoided. C. C. Craig and his Committee to Explore the Desirability of Changing the Time of Winter Meetings are preparing a questionnaire on the subject for distribution to a sample of our membership. It might be mentioned that our desire to hold joint meetings with both mathematical and other statistical organizations severely restricts the independence of our actions.

Early this year, the Secretary requested the appointment of a Committee to advise him on the adequacy of physical facilities for meetings. This Committee, with J. L. Hodges, Jr., as Chairman, has served its purpose well.

Among the many duties of the incoming President, Henry Scheffé, has been his service as Chairman of a Committee to Re-examine the Constitution and By-Laws. Manifestations of the considerable work which has been accomplished probably will reach the membership in 1955.

A Committee consisting of T. W. Anderson, Jr., Chairman; H. Cramér, W. Feller, M. A. Girshick, and S. S. Wilks, was appointed to nominate the Editor of the *Annals* for the term of 1956-58. The election of the new editor by the Council must take place well in advance of the beginning of his term of office so that he and his staff may begin work on manuscripts. I am very happy to report that the committee was able to persuade the present editor, E. L. Lehmann, to accept nomination for another term. He was duly re-elected by the Council at the Montreal meeting.

P. S. Dwyer, Chairman; W. E. Deming, and Churchill Eisenhart were appointed as members of a Committee to nominate a Secretary and a Treasurer to succeed Kenneth J. Arnold, whose term as Secretary-Treasurer expires June 30, 1955. Over the years, the work of the combined office has so increased that it now seems necessary to take advantage of the constitutional provision which permits separate officers. Upon nomination by Professor Dwyer's Committee, the 1954 Council, at its Berkeley meeting, elected George E. Nicholson, Jr., as Secretary and Albert H. Bowker as Treasurer. The terms for both officers are for the period, July 1, 1955 to June 30, 1958.

As usual, our official representatives have been effective. Harold Hotelling is completing his term in the Council of the American Association for the Advancement of Science. S. S. Wilks has been appointed to a further three-year term on the Division of Mathematics, National Research Council, by President Bronk of the National Academy of Sciences. W. G. Madow and T. W. Anderson, Jr., are completing another year of helpful service on the Inter-Society Committee on the

Mathematical Training of Social Scientists. It should be noted that Professor Madow accepted the responsibility for organizing this successful Committee and has served as its chairman from the beginning.

J. C. R. Li was asked to represent the Institute at the inauguration of Owen Meredith Wilson as President of the University of Oregon.

The following members served as official delegates from the Institute to the International Congress of Mathematicians at Amsterdam:

D. H. Blackwell
J. Neyman
H. E. Robbins
C. Stein
S. S. Wilks

Upon nomination by the Committee on Fellows, the Council elected the following persons as Fellows of the Institute:

R. R. Bahadur
H. E. Daniels
D. A. Darling
D. A. S. Fraser
L. M. LeCam

The following persons have been appointed to serve on the Nominating Committee for 1955:

W. J. Dixon, Chairman	H. B. Mann
M. A. Girshick	H. Nisselson
M. G. Kendall	A. W. Tucker

Committees of the Institute, 1954

I. The Council and Committees of the Council.

(a) Elected members of the Council

Term expires 1954
A. H. Bowker
T. C. Koopmans
H. E. Robbins
H. G. Romig

Term expires 1955
W. G. Cochran
Churchill Eisenhart
Henry Scheffé
J. W. Tukey

Term expires 1956
T. W. Anderson, Jr.
Joseph Berkson
Z. W. Birnbaum
D. H. Blackwell
W. G. Madow

(b) Executive Committee

E. G. Olds, *President*
Henry Scheffé, *President-Elect*
K. J. Arnold, *Secretary-Treasurer*
E. L. Lehmann, *Editor*

- (c) Committee on Fellows
 Term expires 1954
 Gerhard Tintner
 S. S. Wilks, *Chairman*
- Term expires 1955
 W. G. Madow
 Edward Paulson
- Term expires 1956
 D. H. Blackwell
 Howard Levene
- (d) Associate Secretaries
 Evelyn Fix, Western Region
 W. H. Kruskal, Central Region
 Lionel Weiss, Eastern Region
- (e) Associate Treasurer
 E. S. Pearson
- (f) Associate Editors
 D. H. Blackwell
 H. E. Daniels
 J. L. Hodges, Jr.
- Wassily Hoeffding
 W. G. Madow
 A. M. Mood
- J. Wolfowitz

II. Editorial Committee

- (a) E. L. Lehmann, *Editor, Chairman*
- (b) Associate Editors listed immediately above
- (c) Cooperating members
 Z. W. Birnbaum
 R. C. Bose
 Herman Chernoff
 K. L. Chung
 J. F. Daly
 D. A. Darling
 J. L. Doob
 T. E. Harris
 P. G. Hoel
 J. Kiefer
 W. H. Kruskal
 Soloman Kullback
- H. B. Mann
 G. E. Noether
 Edward Paulson
 M. P. Peisakoff
 H. E. Robbins
 S. N. Roy
 L. J. Savage
 Herbert Solomon
 C. M. Stein
 Lionel Weiss
 M. A. Woodbury

III. Committees Related to Program

- (a) Annual Meeting—Berkeley
 Leo Katz, *Chairman*
 Elizabeth L. Scott, V. Chr.
 Evelyn Fix, Assoc. Secy.
 J. A. Jeeves, Asst. Secy.
 Z. W. Birnbaum
 D. H. Blackwell
- D. G. Chapman
 M. A. Girshick
 T. E. Harris
 G. B. Price
 Mina Rees
 F. F. Stephan
- (b) September Meeting—Montreal
 D. B. DeLury, *Chairman*
 Lionel Weiss, Assoc. Secy.
 Roger Lessard, Asst. Secy.
 R. L. Anderson
 I. W. Burr
- G. J. Lieberman
 W. E. Patte
 Howard Raiffa
 R. G. D. Steel
 D. J. Thompson
 D. F. Votaw

(c) Eastern Region

R. A. Bradley, *Chairman*
 Lionel Weiss, *Assoc. Secy.*
 I. Blumen, *Asst. Secy.*
 H. A. Meyer, *Asst. Secy.*
 I. J. D. Bross

Glenn Burrows
 Max Halperin
 J. E. Jackson
 J. Kiefer
 Gottfried Noether

(d) Central Region

D. A. Darling, *Chairman*
 W. H. Kruskal, *Assoc. Secy.*
 A. T. Craig, *Asst. Secy.*
 John Gurland

A. W. Kimball
 Ingram Olkin
 Murray Rosenblatt
 W. F. Taylor
 Henry Teicher

(e) Western Region

T. E. Harris, *Chairman*
 L. A. Aroian, *Asst. Secy.*
 W. J. Dixon
 J. L. Hodges, Jr.

S. W. Nash
 H. Rubin
 D. Teichroew

(f) Program Coordinator (Ex-officio member of all Program Committees)

Leo Katz

(g) Special Invited Papers

L. A. Goodman, *Chairman*
 T. W. Anderson, Jr.
 D. H. Blackwell
 R. A. Bradley
 D. A. Darling

D. B. DeLury
 T. E. Harris
 Leo Katz
 E. L. Lehmann (Ex-Officio)
 P. R. Rider

IV. Promotional Committees

(a) Individual Memberships

W. D. Baten, *Chairman*
 Evelyn Fix
 E. L. Kaplan
 E. S. Keeping
 O. E. Lancaster

M. R. Mickey, Jr.
 E. W. Pike
 M. E. Wescott
 Sigmund Zobel

(b) Academic Institutional Memberships

T. A. Bancroft, *Chairman*
 A. C. Cohen, Jr.
 G. B. Dantzig
 P. C. Hammer

Boyd Harshbarger
 L. A. Knowler
 E. B. Mode
 F. M. Weida

(c) Non-Academic Institutional Membership

H. G. Romig, *Chairman*
 C. A. Bennett
 M. A. Brumbaugh
 A. V. Feigenbaum
 R. P. Gage

F. J. Halton, Jr.
 E. P. King
 C. E. Noble
 P. S. Olmstead

V. Other Committees

(a) Nominating Committee

Appointed by 1953 President M. H. Hansen

Max Woodbury, *Chairman*
 Walter Bartky
 R. A. Bradley

Edward Paulson
 George Kuznets

- (b) Rietz Lecture Committee
 J. Neyman, *Chairman*
 Harald Cramér
 Harold Hotelling
- (c) Professional Standards of Statisticians in Government Service
 B. F. Kimball, *Chairman*
 K. A. Brownlee
 R. W. Burgess
 Besse B. Day
 Churchill Eisenhart
 G. M. Harrington
 P. G. Homeyer
 A. S. Householder
 George Kuznets
 Joseph Lev
 Herbert Marhsall
 R. E. Patton
 J. E. Walsh
- (d) Editorial Committee for the publication of Wald's Selected Papers
 T. W. Anderson, Jr., *Chairman*
 Harald Cramér
 H. A. Freeman
 E. J. Lehmann
 J. L. Hodges, Jr.
 A. M. Mood
 C. M. Stein
- (e) Planning Committee for Summer Statistical Institute
 J. Neyman, *Chairman*
 T. W. Anderson, Jr.
 Z. W. Birnbaum
 D. H. Blackwell
 J. L. Doob
 W. Feller
 J. Gurland
 W. G. Madow
 F. C. Mosteller
 H. A. Meyer
 G. E. Nicholson
 M. Rosenblatt
 M. Sobel
 C. M. Stein
 R. M. Thrall
- (f) Committee to Prepare Manual for Guidance of Officers
 K. J. Arnold, *Chairman*
 P. S. Dwyer
 M. A. Girshick
 M. H. Hansen
 E. G. Olds
 Henry Scheffé
- (g) Advisory Committee on Statistical Computations
 Z. W. Birnbaum, *Chairman*
 A. H. Bowker
 Churchill Eisenhart
 C. C. Craig
- (h) Committee on Exchanges
 P. S. Dwyer, *Chairman*
 K. J. Arnold (*Ex-Officio*)
 E. L. Lehmann (*Ex-Officio*)
- (i) Finance Committee
 Mortimer Spiegelman, *Chairman*
 C. H. Fischer
 K. J. Arnold
- (j) Committee on Activities and Development
 A. H. Bowker, *Chairman*
 R. C. Bose
 G. W. Brown
 J. H. Curtiss
 W. E. Deming
 K. W. Halbert
 H. O. Hartley
 E. L. Lehmann
 E. S. Marks
 Frank Riordan
 H. E. Robbins
- (k) Committee on Committee Procedures
 H. E. Robbins, *Chairman*
 K. J. Arnold
 Z. W. Birnbaum
 J. H. Curtiss
 H. W. Norton

1512 individual members at the end of 1954, 442 were in the special categories set up by the bylaws: 232 were members whose permanent residence is outside the United States and Canada, 185 were student members, 12 were nominees of institutional members, 8 were husband-wife members, 3 were retired from active service and 2 were on active military duty.

The number of institutional members increased from 9 at the end of 1953 to 12 at the end of 1954 with the enrollment of the Statistical Laboratory of the State College of Iowa, the Department of Mathematics of Michigan State College, and the State University of Iowa. Our institutional members are very much appreciated both because of their financial support of the expending program of the Institute and because of the approval of the activities and aspirations of the Institute, which the officers of the Institute believe is implied by this financial support.

During 1954 the Institute held its 59th through 64th meetings. These meetings have been reported in the *Annals* except for the last two, reports of which will appear in the same issue of the *Annals* as will this report. Business meetings were held during the 62nd (16th Summer) meeting and the 64th (17th Annual) meeting. The report of the first of these appeared in the December *Annals* and the report of the second will appear in the same issue of the *Annals* as will this report. The Program Committees are to be congratulated on the excellent programs which have been arranged under the immediate direction of R. A. Bradley, T. E. Harris, D. B. DeLury, Leo Katz and Elizabeth Scott with the overall guidance of our Program Coordinator Leo Katz. The full membership of the Program Committees is given in the President's report. The Assistant Secretaries Isadore Blumen, H. A. Meyer, L. A. Aroian, Roger Lessard, A. T. Craig and T. A. Jeeves are to be congratulated on the physical arrangements and the Associate Secretaries Lionel Weiss, W. H. Kruskal and Evelyn Fix on their performance of the duties of the Secretary with respect to these meetings.

In November a directory was issued with information obtained from members up to October 15, 1954. The information given is more complete than has been available in directories of the Institute for many years.

It has been usual in the past to have the reports of the Secretary and of the Treasurer submitted at the same time. This year the Treasurer suggested and the Executive Committee agreed that the auditor's report should be transmitted to the membership and that the Treasurer's report should be delayed until these two reports could be submitted together. The Treasurer's report for 1954 should therefore appear in the June, 1955 issue of the *Annals*.

K. J. ARNOLD
Secretary

REPORT OF THE EDITOR OF THE ANNALS FOR 1954

The 1954 volume of the *Annals* contained 53 papers and 23 notes. Together with the usual reports, abstracts, and news and notices this brought the total number of pages printed to 826. While this is an increase of more than 100 pages

over the previous volume, the number of papers submitted during the year showed a decrease for the first time in many years.

The special invited paper published this year was by J. Wolfowitz: "Estimation by the Minimum Distance Method in Nonparametric Stochastic Difference Equations".

On behalf of the Editorial board, the Editor takes the opportunity to acknowledge the generous refereeing assistance of the following: G. E. Albert, T. W. Anderson, F. J. Anscombe, R. E. Bechhofer, Joseph Berkson, Max A. Bershada, Julius Blum, G. E. P. Box, A. H. Bowker, A. C. Cohen, W. C. Connor, D. R. Cox, C. C. Craig, Monroe Donsker, Meyer Dwass, B. Epstein, D. A. S. Fraser, M. A. Girshick, Leo Goodman, Ulf Grenander, John Gurland, J. M. Hammersley, Morris H. Hansen, L. H. Herbach, William N. Hurwitz, T. A. Jeeves, Leo Katz, D. G. Kendall, L. LeCam, Eugene Lukacs, F. J. Massey, Lincoln Moses, F. Mosteller, W. L. Nicholson, E. S. Pearson, C. R. Rao, Murray Rosenblatt, I. R. Savage, Henry Scheffé, Elizabeth Scott, Monroe G. Sirken, Rosedith Sitgreaves, Milton Sobel, George Steck, and W. F. Taylor.

The Editor is greatly indebted to Arnold Court and Mrs. Joanne Hand for preparing the manuscripts for the printer and providing other editorial assistance.

E. L. LEHMANN

Editor

December 29, 1954.

PUBLICATIONS RECEIVED

- GNEDENKO, B. V. AND A. N. KOLMOGOROV, *Limit Distributions for Sums of Independent Random Variables*, Addison-Wesley Publishing Co., Inc., Cambridge, 1954, ix + 264 pp., \$7.50.
- Naval Research Logistics Quarterly*, Vol. 1, No. 1, March, (1954), Office of Naval Research, U. S. Government Printing Office, 74 pp.
- JENSEN, ARNE, *A Distribution Model*, Munksgaard, Copenhagen, 1954, 99 pp.
- KLEIN, LAWRENCE R., GEORGE KATONA, JOHN B. LANSING AND JAMES N. MORGAN, *Contributions of Survey Methods to Economics*, Columbia University Press, New York, 1954, 269 pp., \$5.00.
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