

NEWS AND NOTICES

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

Personal Items

Mr. J. C. Bain, formerly Chief Statistician of the Abitibi Power & Paper Company, Ltd., Toronto, Canada is now Director of Operational Research Projects for the Associated Merchandising Corporation, New York. In this new position he will direct work in Operational Research and its allied fields applied to the operations of department stores.

Dr. Allan Birnbaum, formerly Statistician of the National Foundation for Infantile Paralysis, is now Lecturer and Director of the Statistical Consulting Service in the Department of Mathematical Statistics, Columbia University.

Dr. Robert W. Burgess, formerly Economist and Actuary, Western Electric Company, was retired under the age rule in July, 1952, and was a consultant in Business and Economic Statistics for the next six months. In February, 1953 he became Director, Bureau of the Census, Washington, D. C.

Dr. Enrique Cansado, after completing his appointment as Visiting Professor at the University of California at Los Angeles (1951-1952), is now working in Santiago, Chile as Visiting Professor of General Statistics at the new Inter American Training Center of Economic and Financial Statistics (Avenida Republica 517).

Dr. George B. Dantzig is now Research Mathematician with the Rand Corporation, Santa Monica, California.

Dr. Herbert A. David, who recently received his Ph.D. degree from the University of London, has been appointed to the Section of Mathematical Statistics of the Commonwealth Scientific and Industrial Research Organization, Australia and will be stationed at the Sheep Biology Laboratory, Prospect, N.S.W., Australia.

Mr. Gregory M. Dillon, who was recalled to duty in the Army two years ago as a captain, has returned from Army Field Forces Board #4, Fort Bliss, Texas to his position in the Treasurer's Department, E. I. duPont de Nemours and Company, Wilmington, Delaware.

Mr. Robert Fagot, who has recently been recalled to active duty as an Aerology Officer in the Navy for a period of 18-24 months, is now attached to Fleet Weather Central, Kodiak, Alaska.

Professor Wayne W. Gutzman, who was recently discharged from the Navy, has resumed his duties as Professor of Mathematics at the University of South Dakota.

Dr. Gordon M. Harrington, formerly Research Associate with the Educational Research Corporation, Cambridge, Massachusetts, is now with the Connecticut State Department of Education at Consultant-in-Research.

Professor Paul G. Homeyer has resumed his duties at the Statistical Laboratory, Iowa State College, Ames, Iowa after serving as Statistical Lecturer and

Consultant for F. A. O., United Nations, at the Agricultural Research Station, Rehovot, Israel from July 22 to September 26, 1952.

Mr. William R. Hydeman has accepted an appointment as Staff Mathematician with the Engineering Research Associates Division of Remington Rand Inc. This appointment is at the recently established ERA Computation Center at Arlington, Virginia.

Professor Raymond J. Jessen has resumed his duties at the Statistical Laboratory, Iowa State College, Ames, Iowa after completing his assignment from July to October, 1952 to the Agricultural Statistics Training Center in Ecuador to plan and execute an agricultural survey on a sampling basis for demonstrating and teaching how modern survey techniques can be used in somewhat underdeveloped countries.

Professor Dr. Hans Kellerer has recently been appointed Professor-in-Ordinary for Statistics at the Free University of Berlin, Germany.

Dr. R. A. Leibler, formerly of Sandia Corporation, has accepted the position of Mathematician with the Department of Defense.

Professor Kenneth May of Carleton College has been awarded a Ford Foundation Fellowship for the academic year 1953-54 for "the preparation of materials for the mathematical training of social scientists."

Mr. John W. Norton, has been transferred from his production supervision duties at Union Oil Company's Oleum Refinery and assumed duties in the Manufacturing Economics Group in the Head Office of Union Oil Company, Los Angeles.

Mr. James A. Pierce is now associated with the Engineering Department of Beech Aircraft Corporation in Wichita, Kansas.

Mr. David A. Probst, formerly of the Institute of Statistics, University of North Carolina, is completing Ph.D. work in Petroleum Geology under Dr. W. C. Krumbein, Northwestern University.

Dr. Samuel Weiss, Executive Director of the American Statistical Association, has been elected Secretary of the Allied Social Science Associations for 1953.

Educational Testing Service

The Educational Testing Service is offering for 1954-55 its seventh series of research fellowships in psychometrics leading to the Ph.D. degree at Princeton University. Open to men who are acceptable to the Graduate School of the University, the two fellowships each carry a stipend of \$2,500 a year and are normally renewable.

Fellows will be engaged in part-time research in the general area of psychological measurement at the offices of the Educational Testing Service and will, in addition, carry a normal program of studies in the Graduate School. Competence in mathematics and psychology is a prerequisite for obtaining these fellow-

ships. The closing date for completing applications is January 15, 1954. Information and application blanks will be available about November 1st and may be obtained from: Director of Psychometric Fellowship Program, Educational Testing Service, 20 Nassau Street, Princeton, New Jersey.

International Congress of Mathematicians

The next International Congress of Mathematicians will be held in Amsterdam, September 2-9, 1954. Among the seven sections into which the Congress will be divided is one on Probability and Statistics. The fee is expected to be about \$14.00 for regular members. Those who wish to attend the Congress, or contribute a short lecture, should write at once to the Secretariat, 2d Boerhaavesstraat 49, Amsterdam, The Netherlands, giving name and full address, degrees, qualifications, etc.

Preliminary Actuarial Examinations Prize Awards

The winners of the prize awards offered by the Society of Actuaries to the nine undergraduates ranking highest on the score of Part 2 of the 1953 Preliminary Actuarial Examination are as follows:

First Prize of \$200

Broadwin, Emile Bernard Harvard University

Additional Prizes of \$100

Fredkin, Donald R. New York University

Gassner, Betty J. New York University

Hessenthaler, Ruth. Pembroke College

Speake, Neal M. University of Michigan

Steiner, Lisa. Swarthmore College

Traynor, Edwin A. Holy Cross College

Watson, Charles B. H. University of Toronto

Zinger, Alexis. University of Montreal

The Society of Actuaries has authorized a similar set of nine prizes for the 1954 examinations on Part 2.

The Preliminary Actuarial Examinations consist of the following three examinations:

Part 1. Language Aptitude Examination.

(Reading comprehension, meaning of words and word relationships, antonyms, and verbal reasoning.)

Part 2. General Mathematics Examination.

(Algebra, trigonometry, coordinate geometry, differential and integral calculus.)

Part 3. Special Mathematics Examination.

(Finite differences, probability and statistics.)

The 1954 Preliminary Actuarial Examinations will be prepared by the Educational Testing Service and will be administered by the Society of Actuaries at

centers throughout the United States and Canada on May 12, 1954. The closing date for applications is March 15, 1954.

Detailed information concerning the Examinations can be obtained from:

The Society of Actuaries
208 South LaSalle Street
Chicago 4, Illinois

New Members

The following persons have been elected to membership in the Institute

February 19, 1953 to May 31, 1953

- Adams, Robert M.**, B.S. (John B. Stetson Univ.), Head of Data Analysis Section, Research Scientist (Mathematics), Radar Division, Defense Research Laboratory, University of Texas, Box I, University Station, Austin, Texas.
- Arnold, Harvey J.**, M.A. (Queen's Univ.), Graduate Assistant, Institute of Statistics, State College, Raleigh, North Carolina, *404 Huron Street, Niagara Falls, Ontario, Canada.*
- Behrns, Vernon N.**, M.A. (Univ. of Buffalo), Mathematics Instructor, University of Buffalo, *217 Kelvin Drive, Buffalo 23, New York.*
- Berger, Arthur R.**, M.S. (Univ. of Illinois), Graduate Research Assistant, Department of Psychology, University of Illinois, *906 South Fourth Street, Champaign, Illinois.*
- Binder, Arnold**, B.S. (Merchant Marine Academy), Graduate Student, Department of Psychology, Stanford University, Stanford, California.
- Bradt, Russell N.**, M.A. (Univ. of Kansas), Graduate Student, Stanford University, Stanford, California, *634 Homer Avenue, Apartment 4, Palo Alto, California.*
- Brakensiek, Donald L.**, M.S. (Univ. of Illinois), Graduate Student and Research Fellow in Agricultural Engineering, Iowa State College, Ames, Iowa, *128 Lynn Avenue, Ames, Iowa.*
- Bryant, Edward C.**, M.S. (Univ. of Wyoming), Associate Professor of Statistics, University of Wyoming, Laramie, Wyoming, *1017 Gibbon Street, Laramie, Wyoming.*
- Burkholder, Donald L.**, M.S. (Univ. of Wisconsin), University Fellow, University of Wisconsin, *110 S. Brooks Street, Madison, Wisconsin.*
- Campopiano, Carmen N.**, M.S. (Rutgers Univ.), Project Engineer, Sperry Gyroscope Company, Great Neck, Long Island and Student, Department of Mathematical Statistics, Columbia University, *252-20 Shiloh Avenue, Bellerose 6, New York.*
- Commings, William D. Jr.**, B.A. (Catholic Univ. of America), Graduate Student, Stanford University, Stanford, California, *1928 Varnum Street N.E., Washington 18, D. C.*
- Curry, Nolan A.**, M.Ch.E. (Rensselaer Polytechnic Inst.), Assistant Quality Manager, Resin Bond Behr-Manning Corporation, Troy, New York, *17 Hawthorne Avenue, Troy, New York.*
- de Cauti, John S.**, M.B.A. (Univ. of Pennsylvania), Instructor, Department of Statistics, University of Pennsylvania, Philadelphia, Pennsylvania, *1118 South 46th Street, Philadelphia 43, Pennsylvania.*
- DeGroot, Morris H.**, B.S. (Roosevelt College, Chicago), Graduate Student, University of Chicago, Chicago, Illinois, *6219 South Ellis Avenue, Chicago 37, Illinois.*
- Edwards, Gerald**, M.A. (Columbia Univ.), Graduate Student, Columbia University, New York, *1205 Eastern Parkway, Brooklyn 13, New York.*
- Folop, Albert A.**, B.A. (Univ. of Oklahoma), Lieutenant, U. S. Navy attending Princeton University as a graduate student, *32 Bank Street, Princeton, New Jersey.*

- Fox, Martin, A.B.** (Univ. of Calif., Berkeley), Student & Computer, Statistical Laboratory, University of California, Berkeley, California, *2674 Sacramento Street, Berkeley 2, California.*
- Gaylor, David W., M.S.** (Iowa State College), Graduate Assistant, Statistical Laboratory, Iowa State College, Ames, Iowa, *3107 West Street, Ames, Iowa.*
- Glazer, Harold, A.M.** (Boston Univ.), Statistician, Harvard College Observatory, *10 Vesta Road, Dorchester, Massachusetts.*
- Gorman, Thomas A. Jr., B.S.** (American Univ.), Mathematician, Statistical Engineering Laboratory, Bureau of Standards and Graduate Student at American University, *3409-A New Mexico Avenue, N.W., Washington 16, D. C.*
- Gran, Robert F., B.S.** (Univ. of Washington), Graduate Student, University of Chicago, Chicago, Illinois, *2516 Central Street, Evanston, Illinois.*
- Hellyer, Sydney, M.A.** (Univ. of British Columbia), Graduate Student and Research Assistant, Department of Psychology, Indiana University, Bloomington, Indiana.
- Hirnyck, William T., A.B.** (Syracuse Univ.), Supervisor, Statistical Quality Control Department, Atlas Powder Company, Tamaqua, Pennsylvania, *547 Arlington Street, Tamaqua, Pennsylvania.*
- Horne, Mary Alice, B.S.** (Univ. of Georgia), Graduate Student, Research Assistant for Bureau of Business Research of University of Georgia, *106 Chestnut Street, Norton, Virginia.*
- Hurst, David C., B.S.** (Montana State College), Graduate Student, Experimental Statistics, North Carolina State College, Raleigh, North Carolina, Institute of Statistics, North Carolina State College, Raleigh, North Carolina.
- Ives, William G. H., M.S.** (Iowa State College), Agriculture Research Officer, Science Service, Division of Forest Biology, Canada Department of Agriculture and Graduate Student, Iowa State College, c/o Forest Biology Laboratory, Box 156, University of Manitoba, Winnipeg, Manitoba, Canada.
- Jaech, John L., M.S.** (Univ. of Washington), Graduate Student and Teaching Fellow, University of Washington, Seattle, Washington. *5436—48th S.W., Seattle, Washington.*
- Jespersen, Howard W., M.S.** (Univ. of Rochester), Graduate Assistant, c/o Statistical Laboratory, Iowa State College, Ames, Iowa.
- Johns, M. Vernon Jr., B.A.** (Stanford Univ.), Graduate Student, Department of Mathematical Statistics, Columbia University, New York, *Room 623 Furnald Hall, Columbia University, New York 27, New York.*
- Klose, Orval M., S.M.** (Univ. of Chicago), Assistant Professor of Mathematics, Seattle University, Seattle, Washington (at present on leave), Graduate Student, *9960 Rainier Avenue, Seattle 8, Washington.*
- Koopmans, Lambert H., A.B.** (San Diego State College), Graduate Student, University of California, Berkeley, California, *3284 Golden Avenue, Lemon Grove 1, California.*
- Kramer, Clyde Y., M.S.** (Virginia Polytechnic Inst.), Graduate Student Instructor, Virginia Polytechnic Institute, Blacksburg, Virginia, Statistical Laboratory, Virginia Polytechnic Institute, Blacksburg, Virginia.
- Lamphiear, Donald E., A.B.** (The George Washington Univ.), Statistician, Office of the Assistant Director for Statistical Standards, Bureau of the Census, Washington 25, D. C.
- Lipstein, Benjamin, B.A.** (Brooklyn College), Mathematical Statistician, Office of Statistical Standards, U. S. Bureau of Labor Statistics, Washington 25, D. C., *628 Northampton Drive, Silver Spring, Maryland.*
- Lloyd, Stuart P., Ph.D.** (Univ. of Illinois), Research Mathematician in "Probability, Statistics, Discrete Systems", Bell Telephone Laboratories, Inc., Murray Hill, New Jersey.
- Lomeli, Maria Guadalupe, M.S.** (Universidad Nacional Autonoma de Mexico), Graduate Assistant, Iowa State College, Ames, Iowa, *Louisiana 93, Mexico 18, D. F., Mexico.*

- Lundegard, Robert J.**, M.S. (Purdue Univ.), Graduate Student, Purdue University, *FPHA 202-1, West Lafayette, Indiana*.
- Lynch, James W.**, A.B. (Univ. of Georgia), Graduate Student and Research Assistant, University of Georgia, Athens, Georgia, *Route 2, Athens, Georgia*.
- Madison, Ralph L.**, M.S. (Iowa State College), Statistician, Aeronautical Radio, Inc., 1520 New Hampshire, N.W., Washington, D. C., *703 Chetworth Place, Alexandria, Virginia*.
- Magee, Col. Richard H.**, M.B.A. (Harvard Univ.), Director, Statistical Control and Market Research, Standard Register Company, Dayton 1, Ohio.
- May, Francis B.**, M.B.A. (Univ. of Texas), Assistant Professor of Buisness Statistics and Statistician, Office of the President, The University of Texas, *605 West 26th Street, Austin, Texas*.
- Mela, Donald F.**, M.A. (Univ. of Michigan), Staff Member, Operations Evaluation Group, Navy Department, *4209 South Four Mile Run Drive, Arlington 4, Virginia*.
- Moy, Shu-Teh Chen**, Ph.D. (Univ. of Michigan), Emmy Noether Fellow in Mathematics of Bryn Mawr College, *287 Waverly Avenue, Detroit 3, Michigan*.
- Navarro, Joseph A.**, M.S. (Purdue Univ.), Research Assistant, Purdue University, *509-4 Airport Road, West Lafayette, Indiana*.
- Newman, Peter K.**, M.Sc. (Univ. of London), Research Associate, Stanford and Graduate Student, Department of Statistics, Stanford University, Stanford, California.
- Newton, Douglas V.**, B.S. (Whitworth College), Graduate Student and Pre-Doctoral Associate, Department of Mathematics, University of Washington, Seattle 5, Washington.
- Patell, Rusi K. N.**, B.S. (Sind Univ., Pakistan), Graduate Student, Mathematical Statistics, Columbia University, New York, *202 International House, 500 Riverside Drive, New York 27, New York*.
- Paul, Gilbert I.**, M.S. (Univ. of Alberta), Graduate Student, Experimental Statistics, Institute of Statistics, Box 5457, State College Station, Raleigh, North Carolina.
- Perry, Frederick M.**, B.S. (Univ. of Main), Research and Development Engineer (Noise and Information Theory), General Electric Advanced Electronics Development Center Cornell University, Ithaca, New York, *2000 Pyle Road, Schenectady 3, New York*.
- Pratt, John Winsor**, A.B. (Princeton Univ.), Graduate Student, Department of Statistics, Stanford University, Stanford, California.
- Rabin, Jordan B.**, A.M. (Columbia Univ.), Statistician, RCA Service Company, Inc., *2052 B N. John Russell Circle, Elkins Park 17, Pennsylvania*.
- Read, Robert R.**, B.S. (Ohio State Univ.), Graduate Student, University of California, Berkeley, California, *2428 College Avenue, Berkeley 4, California*.
- Richter, Donald L.**, A.B. (Bowdoin), Graduate Student, University of North Carolina, Raleigh, North Carolina, *1631 East 21st Street, Brooklyn, New York*.
- Riordan, Frank S. Jr.**, Ph.D. (Univ. of Tennessee), Quality Control Supervisor, *The Chemstrand Corporation, c/o E. I. DuPont de Nemours and Company, Martinsville, Virginia*.
- Rosenblatt, Judah I.**, B.A. (Johns Hopkins Univ.), Graduate Student, Columbia University, New York, *1441 John Jay Hall, Columbia University, New York 27, New York*.
- Roy, Anadi Ranjan**, M.S. (Calcutta Univ.), Graduate Student, Department of Statistics, Stanford University, Stanford, California.
- Rumer, Evelyn L.**, M.A. (Univ. of Minnesota), Engineering Assistant, Statistical Methods Section, G. E. Laboratory, General Electric Company, *5 Union Street, Schenectady, New York*.
- Rustagi, Jagdish S.**, M.A. (Delhi Univ., India), Graduate Student, Department of Statistics, Stanford University, Stanford, California.
- Saunders, Sam C.**, B.S. (Univ. of Oregon), Graduate Student and Teaching Fellow, Department of Mathematics, University of Washington, Seattle 5, Washington.
- Scheurer, Ernest M.**, B.A. (Reed College), Graduate Student and Teaching Fellow, Department of Mathematics, University of Washington, Seattle 5, Washington.

- Schneider, Ronald E.**, M.S. (Virginia Polytechnic Inst.), Graduate Student, Virginia Polytechnic Institute, Blacksburg, Virginia, *159 Ido Avenue, Akron 1, Ohio.*
- Sheehan, Franklin F.**, B.S. (Stanford Univ.), Graduate Student, Menlo College, Menlo Park, California.
- Steck, George P.**, M.S. (California Inst. of Tech.), Graduate Student and Teaching Assistant, Statistical Laboratory, University of California, Berkeley, California, *2433 Oregon Street, Berkeley 5, California.*
- Stephens, Rothwell**, Ph.D. (Iowa), Professor of Mathematics, Knox College, *3 Mt. Lucas Road, Princeton, New Jersey.*
- St. Pierre, Jacques**, M.A. (Université de Montreal, Canada), Graduate Student, Department of Statistics, University of North Carolina, Chapel Hill, North Carolina, *309 Ransom Street, Chapel Hill, North Carolina.*
- Straughan, James H.**, B.A. (Univ. of Florida), Graduate Student, Psychology Department, Indiana University, Bloomington, Indiana.
- Thompson, William A. Jr.**, B.A. (Univ. of Illinois), Research Assistant and Graduate Student, University of North Carolina, Chapel Hill, North Carolina, *190 Jackson Circle, Chapel Hill, North Carolina.*
- Tischendorf, John A.**, M.S. (Purdue Univ.), Graduate Research Assistant and Graduate Student, Purdue University, West Lafayette, Indiana, *210 Waldron Street, West Lafayette, Indiana.*
- Truax, Donald R.**, M.S. (Univ. of Washington), Graduate Student, University of Washington, Seattle, Washington, *3309 Hover Place, Seattle 5, Washington.*
- Tweedie, Maurice C. K.**, M.S. (Univ. of Reading, England), Associate Professor of Statistics, Department of Statistics, Virginia Polytechnic Institute, Blacksburg, Virginia.
- Wesler, Oscar**, M.S. (New York Univ.), Graduate Student, Applied Mathematics and Statistics Laboratory, Stanford University, Stanford, California.
- West, Lester L.**, A.B. (Univ. of Michigan), Statistician, Quality Control, Nash-Kelvinator Corp., Grand Rapids, Michigan, *1428 Fremont Avenue, N.W., Grand Rapids 4, Michigan.*
- White, Kathleen E.**, B.S. (Univ. of Washington), Graduate Student, Research Fellow, University of Washington, Seattle, Washington, *2427—5th Avenue W., Seattle 99, Washington.*
- Woodward, John**, M.S. (Univ. of Georgia), Graduate Student and Research Assistant, Mathematics Department, University of Georgia, Athens, Georgia, *495 Waddell Street, Athens, Georgia.*
- Wright, Charles W.**, Wildlife Technician, New Jersey Department of Conservation and Economic Development Division of Fish and Game, *Summit Avenue, Berlin, New Jersey.*

REPORT OF THE WASHINGTON MEETING OF THE INSTITUTE

The Graduate School, U. S. Department of Agriculture, Washington, D. C., was host to the Spring meeting on April 29, 30 and May 1, 1953. The meeting was held jointly with the Biometric Society, Eastern North American Region. The following 106 members of the Institute attended.

P. H. Anderson, Allan Birnbaum, C. I. Bliss, R. C. Bose, R. A. Bradley, G. M. Brier, G. L. Burrows, J. M. Cameron, J. F. Canu, B. A. Clarke, W. H. Clatworthy, A. C. Cohen, Jr., S. E. Cohen, W. S. Connor, E. B. Cook, E. L. Cox, L. S. Crump, C. Daniel, D. A. Darling, Besse Day, F. R. Del Priore, W. E. Deming, Cyrus Derman, D. B. Duncan, David Durand, R. A. Eckler, Benjamin Epstein, L. J. Gerende, Dorothy Gilford, Leon Gilford, Mary Goins, H. S. Graf, S. W. Greenhouse, J. A. Greenwood, Evelyn Grossman, W. J. Hall, Max Halperin, J. F. Hannan, M. H. Hansen, H. H. Harman, Bernard Harris, Boyd Harshbarger, Robert Hooke, Jacob Horowitz, D. G. Horvitz, J. S. Hunter, C. M. Jaeger, A. T. James, N. L. Johnson, Wayne Jones, A. E. Karp, D. G. Kendall, W. A. Kimball, Jr., E. P. King, C. F. Kossack, Gunnar Kulldorff, Boyd Ladd, Jack Laderman, Gilbert Lieberman, J. E. Lieberman, Julius Lieblein, R. F. Link, Benjamin Lipstein, S. P. Lloyd, Eugene Lukacs, John Mandel, C. L. Marks, R. D. Marshall, R. H. Matthias, Paul Meier, D. F. Mela, H. A. Meyer, R. H. Morris, Milton Morrison, Paul Nesbeda, M. L. Norden, J. G. Osborne, K. C. S. Pillai, P. R. Rider, Joan Rosenblatt, S. N. Roy, Rose Sachs, Marion Sandomire, I. R. Savage, Henry Scheffé, M. A. Schneiderman, W. R. Simmons, Paul Somerville, J. R. Stehn, M. E. Terry, L. J. Tick, J. W. Tukey, Maurice Tweedie, G. W. Tyler, D. L. Wallace, S. S. Wilks, Gerald Winston, M. A. Woodbury, W. J. Youden, W. B. Zacharias, Marvin Zelen.

The program of the meeting was as follows.

WEDNESDAY, APRIL 29, 1953

9:00 A. M. Registration

10:30 A. M. Statistics in the Physical Sciences.

Chairman: Leon Gilford, Bureau of the Census.

Papers: (1) *The Application of Multivariate Quality Control to a Photographic Problem.* J. Edward Jackson (with Robert H. Morris), The Eastman Kodak Company, Rochester, N. Y.

(2) *Control and Measurement of Experiment Error.* Joseph M. Cameron, National Bureau of Standards.

Discussants: Milton E. Terry, Bell Telephone Laboratories, Murray Hill, N. J. and Carl F. Kossack, Purdue University.

1:30 P. M. Welcome on Behalf of the Graduate School, United States Department of Agriculture.

Chairman: Glenn L. Burrows, Bureau of Agricultural Economics.

Speaker: Philip V. Cardon, Ph.D., Director, Graduate School, U. S. D. A.

1:45 P. M. Contributed Papers for the Institute of Mathematical Statistics.

Part A

Chairman: Glenn L. Burrows, Bureau of Agricultural Economics.

- Papers: (1) *Optimum Sample Sizes for Choosing the Largest of $(k + 1)$ Means using Minimax Methods*. Paul N. Somerville, University of North Carolina.
 (2) *The Correspondence between Two Classes of Balanced Incomplete Block Designs*. W. S. Connor, National Bureau of Standards.
 (3) *A Finite Frequency Theory of Probability*. A. H. Copeland, Sr., University of Michigan.
 (4) *Characterizations of Complete Classes of Tests of Some Multiparametric Hypotheses, with Applications to Likelihood Ratio Tests*. Allan Birnbaum, Columbia University.
 (5) *Confidence Regions for the Location of the Vertex in Quadratic Regression*. (A Preliminary Report.) David L. Wallace, Princeton University.
 (6) *The Noncentral Wishart Distribution*. (A Preliminary Report.) A. T. James, Princeton University.
 (7) *On Time-Dependent Waiting Line Processes*. A. Bruce Clarke, University of Michigan.

The following papers were presented by title.

- (8) *Some Estimates which Minimize the Least Upper Bound of a Probability Together with the Cost of Observation*. H. S. Konijn, University of California, Berkeley.
 (9) *On a Multivariate Analogue of Student's t -Distribution, with Some Tables for the Bivariate Case*. Charles W. Dunnett and Milton Sobel, Cornell University.
 (10) *On the Completeness of Classes of Bayes' Solutions*. Lucien M. LeCam, University of California, Berkeley.
 (11) *Identification and Estimation of Linear Structures with Symmetric Errors*. T. A. Jeeves, University of California, Berkeley.

Part B

Chairman: David, D. Mason, Bureau of Plant Industry, Soils, and Agricultural Engineering.

- Papers: (12) *The Cramer-Smirnov Test in the Parametric Case*. (A Preliminary Report.) Donald A. Darling, Columbia University.
 (13) *Asymptotic Solutions of the Compound Decision Problem for Two Completely Specified Populations*. James F. Hannan, (with Herbert Robbins), Catholic University of America and University of North Carolina.
 (14) *On the Estimation of the Mean Life of a Radioactive Source*. (A Preliminary Report.) Richard F. Link, Princeton University.
 (15) *The Use of the Questionnaire to Compare Two Populations for the Purpose of Improving the Course Content in a Mathematics Course for Business Teachers*. Mary Goins, Marshall College.
 (16) *Minimax Decisions Regarding Mean of a Normal Variable with Unknown Variance*. Manindra n. Ghosh, University of North Carolina.
 (17) *On Two-Stage Estimation Procedures*. S. G. Ghurye, (with Herbert Robbins), University of North Carolina and Institute for Advanced Study.

The following papers were presented by title.

- (18) *Estimation of the Location Parameter in the Structural Problem of Neyman*. T. A. Jeeves, University of California, Berkeley.

- (19) *On the Distribution of the Sum of the Roots of a Determinantal Equation.* K. C. S. Pillai, University of North Carolina.
- (20) *On a Problem in Multivariate Regression.* Thomas S. Ferguson, University of California, Berkeley.
- (21) *On the Problem of Construction of Orthogonal Arrays.* Esther Seiden, University of Chicago.
- (22) *The Joint Distribution of n Successive Amplitudes.* (A Preliminary Report.) W. C. Hoffman, U. S. Navy Electronics Laboratory, San Diego.
- (23) *Simultaneous Tests for Regression Coefficients by the Two Stage Procedure.* Manindra n. Ghosh, University of North Carolina.
- (24) *Optimum Sample Size for Choosing the Largest of $(k + 1)$ Parameters from $(k + 1)$ Otherwise Identically Distributed Populations.* Paul N. Somerville, University of North Carolina.

THURSDAY, APRIL 30, 1953

9:30 A. M. Statistics in the Biological Sciences.

Chairman: Max Halperin, National Heart Institute.

- Papers: (1) *Factorial Chi Square Analysis of Data from Experiments in Immunology.* H. C. Batson, University of Illinois College of Medicine.
- (2) *Applications of Nonparametric Methods to Medical Data.* Irwin D. J. Bross, Cornell University Medical College.
- (3) *Stochastic Growth and Mutation Processes.* David G. Kendall, Magdalen College, Oxford and Princeton University.
- (4) *Statistical Designs for the Efficient Removal of Trends Occurring in Comparative Experiments with Applications in Biological Assay.* George E. P. Box Imperial Chemical Industries, Manchester, England and North Carolina State College, (with W. A. Hay).

1:30 P. M. Contributed Papers, Joint Session, for the Institute of Mathematical Statistics and the Biometric Society, Eastern North American Region.

Chairman: Boyd Harshbarger, Virginia Polytechnic Institute.

- Papers: (1) *Necessary Conditions for the Existence of Partially Balanced Incomplete Block Designs with Two Associate Classes.* W. H. Clatworthy, (with W. S. Connor), National Bureau of Standards.
- (2) *Estimation in Truncated Bivariate Normal Distributions.* (A Preliminary Report.) A. C. Cohen, Jr., University of Georgia.
- (3) *On a Class of Optimum Linear Predictors.* R. F. Drenick, (with P. Nesbida), R. C. A. Victor Division, Camden, N. J.
- (4) *Multiple Range Tests and the Multiple Comparisons Test.* (A Preliminary Report.) David B. Duncan, Virginia Polytechnic Institute.

3:00 P. M. Sequential Procedures.

Chairman: Edward Paulson, Office of Naval Research

- Papers: (1) *Sequential Procedures in Component of Variance Problems.* Norman Lloyd Johnson, University College, London and University of North Carolina.
- (2) *Sequential Estimation.* M. C. Kenneth Tweedie, Virginia Polytechnic Institute.

Discussant: Walter Jacobs, Department of the Air Force.

FRIDAY, MAY 1, 1953

9:30 A. M. Contributed Papers for the Biometric Society, Eastern North American Region.

Chairman: Jerome Cornfield, National Cancer Institute.

- Papers: (1) *The Analysis of Some Incomplete Block Designs with a Missing Block*. Marvin Zelen, National Bureau of Standards.
- (2) *The Fitting of Multi-Hit Survival Curves*. Allyn W. Kimball, Oak Ridge National Laboratory.
- (3) *Estimating the Dose of a Cardiac Glycoside for Human Subjects*. C. I. Bliss, Connecticut Agricultural Experiment Station and Yale University, (with Theodore Greiner and Harry Gold, Cornell University Medical College).
- (4) *On the Analysis of Variance of a Two-Way Classification with Unequal Sub-Class Numbers*. Clyde Y. Kramer, Virginia Polytechnic Institute.
- (5) *Ranking Versus Scoring in Palatability Tests Using Small, Trained Panels*. Albert B. Parks, Bureau of Human Nutrition and Home Economics.

11:15 A. M. Additional Contributed Papers for the Institute of Mathematical Statistics.

- (25) *A Property of the Normal Distribution Related to a Theorem of S. Bernstein. (A Preliminary Report.)* Eugene Lukacs and Edgar P. King, National Bureau of Standards.
- (26) *An Asymptotically Efficient Formula for Estimating Parameters from Grouped Data*. M. C. Kenneth Tweedie, Virginia Polytechnic Institute.

1:30 P. M. Sampling.

Chairman: Boyd Ladd, Bureau of the Budget.

- Papers: (1) *Sampling for Time Series*. Max A. Bershad (with William N. Hurwitz and Ralph S. Woodruff), Bureau of the Census.
- (2) *Response Rates and Selectivity in Mail Surveys*. Walter A. Hendricks, Bureau of Agricultural Economics.

Discussant: Earl E. Houseman, Bureau of Agricultural Economics.

3:00 P. M. Simultaneous Confidence Interval Estimation and Testing of Hypotheses.

Chairman: William S. Connor, National Bureau of Standards.

- Papers: (1) *The General Theory and Application to Analysis of Variance and Covariance*. R. C. Bose, University of North Carolina.
- (2) *Applications to Multivariate Situations*. S. N. Roy, University of North Carolina.

Discussants: David B. Duncan, Virginia Polytechnic Institute and Henry Scheffé, Columbia University.

G. L. BURROWS
Assistant Secretary