REPORT ON THE ATLANTIC CITY MEETING OF THE INSTITUTE

The Ninth Annual Meeting of the Institute of Mathematical Statistics was held at Atlantic City, New Jersey, on Friday and Saturday, January 24–25, 1947. The meeting was held in conjunction with meetings of the American Economic Association, American Statistical Association, and the Econometric Society. The following 154 members of the Institute attended the meeting:

Beatrice Aitchison, F. L. Alt, R. L. Anderson, T. W. Anderson, K. J. Arrow, Max Astrachan, B. M. Bennett, Joseph Berkson, A. J. Berman, C. I. Bliss, Paul Boschan, A. E. Brandt, M. F. Bresnahan, Philip Brown, O. P. Bruno, R. W. Burgess, O. K. Buros, B. H. Camp, F. R. Cella, Uttam Chand, K. L. Chung, C. W. Churchman, P. C. Clifford, W. J. Cobb, W. G. Cochran, F. G. Cornell, D. R. Cowan, Harald Cramèr, J. H. Curtiss, J. F. Daly, G. B. Dantzig, D. G. Deihl, D. B. DeLury, B. W. Dempsey, H. F. Dorn, F. W. Dresch, A. J. Duncan, David Durand, P. S. Dwyer, Churchill Eisenhart, W. D. Evans, Will Feller, C. D. Ferris, Irving Fisher, L. R. Frankel, M. A. Geisler, Leon Gilford, M. A. Girshick, C. H. Graves, K. E. Greene, S. W. Greenhouse, F. E. Grubbs, E. T. Gumbel, Margaret Gurney, Louis Guttman, Trygve Haavelmo, K. W. Halbert, M. H. Hansen, Miriam S. Harold, T. E. Harris, Boyd Harshbarger, Bernard Hecht, Wassily Hoeffding, H. B. Horton, Harold Hotelling, E. E. Houseman, Helen M. Humes, Leonid Hurwicz, Seymour Jablon, R. W. James, R. J. Jessen, H. L. Jones, Alice S. Kaitz, H. B. Kaitz, L. S. Kellogg, H. S. Konijn, Tjalling Koopmans, C. F. Kossack, R. L. Kozelka, D. H. Leavens, Howard Levene, J. E. Lieberman, Rensis Likert, S. B. Littauer, Irving Lorge, P. J. McCarthy, P. W. McGann, F. E. McIntyre, H. F. MacNeish, J. D. Maddrill, Jacob Marschak, Max Millikan, A. M. Mood, Mrs. Margaret Moore, J. W. Morse, J. E. Morton, Frederick Mosteller, D. N. Nanda, P. M. Neurath, Jerzy Neyman, M. L. Norden, Nilan Norris, H. W. Norton, P. S. Olmstead, E. G. Olds, Sophie Rakesky, Chester Rapkin, Olav Reiersol, W. A. Reynolds, P. R. Rider, C. F. Roos, A. C. Rosander, Ernest Rubin, Herman Rubin, P. J. Rulon, Frank Saidel, Marion M. Sandomire, Max Sasuly, F. E. Satterthwaite, E. D. Schell, E. M. Schrock, D. H. Schwartz, G. R. Seth, L. W. Shaw, W. A. Shewhart, J. H. Smith, R. T. Smith, Leslie E. Simon, Milton Sobel, C. M. Stein, G. T. Steinberg, Joseph Steinberg, H. W. Steinhaus, F. F. Stephan, A. P. Stergion, M. S. Stevens, G. J. Stigler, S. A. Stouffer, Zenon Szatrowski, B. J. Tepping, J. W. Tukey, D. F. Votaw, Jr., Helen M. Walker, J. H. Watkins, Louis Weiner, Samuel Weiss, S. S. Wilks, Elizabeth W. Wilson, C. P. Winsor, J. Wolfowitz, M. A. Woodbury, Holbrook Working, C. A. Wright, and T. O. Yntema.

The first session, a joint session with the Econometric Society and the Biometrics Section of the American Statistical Association, was held at two o'clock on Friday afternoon, and was devoted to the topic, *Applications of Statistical Techniques to Agricultural Economics.* Holbrook Working of Stanford University presided. The following four papers were presented:

1. *Use of Variance Components in the Analysis of Market Differentials in Hog Prices.* R. L. Anderson, University of North Carolina.
2. *An Application of the Analysis of Variance in the Economic Evaluation of Production.* Boyd Harshbarger, Virginia Polytechnic Institute.
3. *A Model of the Economic Interdependence between Agriculture and the National Economy.* Trygve Haavelmo, Cowles Commission for Research in Economics.
4. *The Reduced-Form Method for Estimating Simultaneous Economic Relationships.* M. A. Girschick, Bureau of the Census.

The session concluded with a discussion of these papers by T. W. Anderson, Columbia University; Milton Friedman, University of Chicago; and, Harold Hotelling, University of North Carolina.

At 8 o'clock on Friday evening there was a joint session with the Econometric Society and the American Statistical Association, on the topic, *When is the Analysis of Variance Useful in Economic Research?* Arthur R. Tebbutt of Northwestern University presided, and the following three papers were presented:

1. *The Advantages of the Analysis of Variance for Research and Managerial Control Purposes.* Harry Pelle Hartkemeier, University of Missouri.
2. *Estimation of Economic Relationships and Multivariate Regression.* Leonid Hurwicz, Iowa State College.
3. *Nonstandard Forms of Variance Analysis.* W. Allen Wallis, University of Chicago.

There was discussion of these papers by Tjalling Koopmans, Cowles Commission for Research in Economics: Gerhard Tintner, Iowa State College; and, J. W. Tukey, Princeton University.

At 10 o'clock on Saturday morning there was a joint session with the American Statistical Association devoted to the topic, *Use of Ordered Observations in Statistical Analysis*, with Harold Hotelling of the University of North Carolina as chairman. The following two papers were presented:

1. *Estimation of Parameters by Use of Order Statistics.* Frederick Mosteller, Harvard University.
2. *Tolerance Limits.* Jacob Wolfowitz, Columbia University.

There was discussion of these papers by John H. Smith, Bureau of Labor Statistics; Howard L. Jones, Illinois Bell Telephone Company; and J. W. Tukey, Princeton University.

At the Saturday morning session one contributed paper of the Institute of Mathematical Statistics was also presented, by E. J. Gumbel, Newark College of Engineering, on the topic: *The Asymptotic Distribution of the Range.*

The Institute's session at 2 o'clock Saturday afternoon was devoted to contributed papers. W. G. Cochran, president of the Institute, presided, and the following four papers were presented:

1. *A Test of Significance of the Coefficient of Rank Correlation for More than Thirty Ranked Items.* Nilan Norris, Hunter College.
2. *A Generalized T Measure of Multivariate Dispersion.* Harold Hotelling, University of North Carolina.
3. *Asymptotic Properties of Maximum and Quasi-Maximum Likelihood Estimates.* Herman Rubin, Cowles Commission for Research in Economics.
4. *The Corner Test for Association.* J. W. Tukey, Princeton University, and Paul Olmstead, Bell Telephone Laboratories.

Abstracts of these papers appear elsewhere in this issue.

Following the session on contributed papers, Professor Jerzy Neyman of the University of California gave an invited address on the topic: *On Consistent Estimates, with Particular Reference to Structural Relations between Several Variables all Subject to Random Error.* A discussion of this address followed, by Miss E. L. Scott, University of California; A. Wald, Columbia University; and Tjalling Koopmans, Cowles Commission for Research in Economics.

The meeting closed with the annual business meeting of the Institute, which was held at 5 p.m. on Saturday in Haddon Hall. Reports by the President, Secretary-Treasurer, and Editor were followed by the election of officers for 1947: Will Feller, President; Morris H. Hansen and John H. Curtiss, Vice-Presidents; and Paul S. Dwyer, Secretary-Treasurer.

P. S. DWYER,
Secretary.