

A symposium on *Randomness and its Testing* occupied the 4:00 P.M. session on Wednesday. Dr. Walter A. Shewhart of the Bell Telephone Laboratories presided and the following papers were presented:

1. *Survey of Available Tests for Randomness.*
W. Allen Wallis, University of Chicago.
2. *Power Functions of Tests for Randomness.*
H. B. Mann, Ohio State University.
3. *Power Functions of Non-Parametric Tests.*
Ransom Whitney, Ohio State University.

Discussion was led by Bernice Brown, The Rand Corporation; Paul S. Olmstead, Bell Telephone Laboratories; E. J. G. Pitman, University of Tasmania.

The morning session on Thursday, December 30, was a joint session with the American Statistical Association, with Professor Jerzy Neyman of the University of California presiding. The following two papers were presented upon invitation of the Institute:

1. *Estimating Linear Restrictions on Regression Coefficients for Multivariate Normal Distributions.*
T. W. Anderson, Columbia University.
2. *Some Aspects of the Theory of Testing Composite Hypotheses.*
E. L. Lehmann, University of California.

The Business Meeting was held at 10:00 A.M. on Tuesday, December 28. Dr. Churchill Eisenhart presided. A report of this meeting is found elsewhere in this issue.

W. R. VAN VOORHIS
Assistant Secretary

REPORT OF THE PRESIDENT OF THE INSTITUTE FOR 1948

The last few years have seen a considerable growth of the Institute. The upward trend has continued throughout 1948. The Institute has acquired 126 new members during the year, but this gain is to be balanced against losses due to resignation and suspension for non-payment of dues. The Institute starts the year 1949 with a membership of about 1,100 as against the membership of 1,037 at the beginning of 1948. While the net gain is still substantial, it is not quite as much as hoped for, and this may serve as an incentive for an increased membership drive in 1949. The constantly increasing interest and research activities in statistical theory and methodology are well reflected in our meetings and the publications appearing in the *Annals*.

Meetings. The growth of the Institute in the past few years has brought about a considerable increase in its various activities. This manifested itself particularly in the extensive and rich programs of the meetings held during the year 1948. In addition to the usual invited addresses and contributed papers, the programs included a considerable number of symposia on various important

subjects such as the theory of games (Berkeley, June; Madison, September), stochastic difference equations (Madison, September), scales of measurement (New York, April), sampling for industrial use (Berkeley, June), etc. The eleventh summer meeting was held in conjunction with the meetings of the American Mathematical Society and the Econometric Society (Madison, September). The eleventh annual meeting (Cleveland, December) was held in conjunction with the American Statistical Association, Econometric Society and Biometric Society. There were also three regional meetings: New York (April), Berkeley (June) and Seattle (November). The Berkeley meeting was held in conjunction with the Pacific Division of the American Association for the Advancement of Science and some of the sessions of the Seattle meeting were sponsored jointly with the Biometric Society.

To facilitate the organization of meetings and arrangements of programs, instead of a single program committee there were three program committees appointed, one for Eastern, one for Mid-Western and one for Far-Western meetings. These committees consisted of the following members. Eastern Committee: W. G. Cochran, C. Eisenhart (Chairman), F. Mosteller, and J. Wolfowitz; Mid-Western Committee: C. C. Craig, H. B. Mann, and A. M. Mood (Chairman); Far Western Committee: Z. W. Birnbaum, M. A. Girshick, P. G. Hoel, and J. Neyman (Chairman). To coordinate the work of these three program committees, a coordinating committee was appointed consisting of J. W. Tukey (Chairman) and the three chairmen of the three program committees. This committee was also charged with the responsibility of making recommendations to the Board of Directors as to times and places for future meetings. Another innovation introduced during the past year was the appointment of assistant secretaries in connection with the meetings. S. B. Littauer acted as assistant secretary for the New York meeting, K. J. Arnold for the summer meeting in Madison, Z. W. Birnbaum for the Seattle meeting and W. R. Van Voorhis for the Cleveland meeting. The assistant secretaries were charged with the task of looking after the local arrangements that had to be made in connection with the meetings. The appointment of assistant secretaries proved to be a great success not only in facilitating the necessary local arrangements for meetings but also in relieving the burden on the secretary's office. On the basis of this year's experience, it seems very desirable to continue with this practice in the future.

No Rietz Memorial lecture was given in 1948 in accordance with a decision of the Board of Directors that these lectures should not be given every year. It is planned, however, to have a Rietz lecture for 1949 and the Board of Directors invited J. Neyman to deliver it.

The New Constitution. One of the major events of the year was the adoption of the new constitution at the meeting in Madison. The growth of the Institute in recent years made parts of the old constitution obsolete and the need for a revision was apparent. Our thanks are due to the Committee on Planning and Development which has devoted much time and consideration to the study of

the problem and prepared a draft of a revised constitution. M. H. Hansen was chairman of this Committee. Other members were: J. H. Curtiss, W. G. Cochran, W. Feller, J. Neyman, H. W. Norton, F. F. Stephan, J. W. Tukey, and W. A. Wallis. A draft of the new By-Laws was prepared by J. W. Tukey, who acted as a subcommittee of the Committee on Planning and Development.

Annals. The growth of the Institute during the past few years has manifested itself also in a constantly increasing number of manuscripts submitted for publication in the *Annals*. While it is very gratifying to see this upward trend, it raises some problems of financial nature. At the rate manuscripts are coming in, an expansion of the publication facilities of the Institute would seem very desirable. Increase of the volume of the *Annals* would, however, mean increased cost and the present financial situation of the Institute could not allow such an additional burden unless some new sources of income can be found. Apart from a possible increase in the cost of printing the *Annals*, it seems that additional expenditures will be necessary for secretarial help in 1949. It was decided at the membership meeting in Madison that additional funds be raised through the contributions of universities and other organizations with strong interest in mathematical statistics and through the contributions of the members. Appeals for such contributions were sent out and it is hoped that there will be a generous response.

The new constitution permits the appointment of responsible Associate Editors. This brings up the whole question of editorial set-up and policies. A committee with S. S. Wilks as chairman was appointed to make a thorough study of the Institute's publication experience and to make recommendations as to publication policies and editorial set-up. Other members of this committee are: W. G. Cochran, W. Feller, M. A. Girshick, J. Neyman, P. S. Olmstead, W. A. Wallis and J. Wolfowitz. The committee gave much thought and consideration to the problems involved and will report to the newly elected officers and Council.

The *Annals* has developed under the leadership of the Editor, S. S. Wilks, to one of the outstanding professional journals. I am sure that I can speak for all our members in expressing the Institute's indebtedness to S. S. Wilks for his untiring and most successful work.

Committees. The problem of classification of statisticians in the Government service is naturally of considerable importance to the statistical profession. A committee consisting of W. E. Deming (chairman) and C. Eisenhart was appointed to make a thorough study of this question with a view to advising the Civil Service Commission. The committee prepared a report in which three main categories of statisticians in Government Service are distinguished: mathematical statisticians, statistical analysts and data-collecting statisticians. The report was transmitted to the Civil Service Commission with the approval of the Board of Directors. The members of this committee are to be commended for the excellent work they have done in spite of the severe limitation of time allotted by the Civil Service Commission. The work on the problem of classifica-

tion of statisticians still goes on and a committee of experts consisting of members of the Washington Statistical Society, the Institute of Mathematical Statistics, and the American Statistical Association has been set up to advise the Civil Service Commission on this problem. Our representatives on this committee of experts are: W. E. Deming, C. Eisenhart, M. H. Hansen and S. Weiss.

The advances in numerical computations in recent years has made an enlargement and reorganization of the Committee on Tabulation necessary. Its present members are: R. L. Anderson, C. Eisenhart (Chairman), A. M. Mood, F. Mosteller, H. G. Romig, L. E. Simon, and J. W. Tukey. The objectives of this committee, as outlined by the chairman are: (1) to prepare a comprehensive list of new mathematical tables that would be of value in statistical theory and applications, (2) to assemble an American Collection of "Tables for Statisticians", (3) to prepare a list of mathematical tables of importance in statistical theory and applications to be recommended for inclusion in the proposed National Bureau of Standards volume of "Tables for the Occasional Computer". To implement the program of the committee, the following sub-committees have been constituted: (1) "On Computing Centers" with L. E. Simon as Chairman, (2) "On Ranks and Runs" with A. M. Mood as Chairman, (3) "On Serial Correlations" with R. L. Anderson as Chairman, (4) "On 2 x 2 Tables" with C. Eisenhart as Chairman, (5) "On Order Statistics" with F. Mosteller as Chairman, (6) "On Binomial, Poisson, and Hypergeometric Distributions" with H. G. Romig as Chairman, (7) "On Miscellaneous Tables" with J. W. Tukey as Chairman.

On the recommendation of the membership committee, consisting of H. Scheffé (chairman), C. C. Craig, P. G. Hoel and F. F. Stephan, the following members have been elected as Fellows: J. Berkson, E. L. Lehmann, E. J. G. Pitman, H. E. Robbins and C. M. Stein. The members of the finance committee for 1948 were P. S. Dwyer (chairman), C. F. Roos, L. A. Knowles and T. N. E. Greville.

The Nominating Committee for 1948 consisted of W. Bartky (chairman), C. C. Craig, J. F. Daly, H. A. Freeman, E. L. Lehmann and W. G. Madow. The committee nominated J. Neyman for President, J. L. Dobb for President-Elect and 24 Council members for the 12 positions to be filled. In accordance with the provisions of the new constitution, the Nominating Committee for 1949 has also been appointed. The members of this Committee are: W. G. Cochran (Chairman), M. H. Hansen, H. B. Mann, A. M. Mood and H. G. Romig.

The Board of Directors has been exploring the possibilities for a closer cooperation with our colleagues abroad and for making foreign statistical publications more easily accessible to our members. In particular, there has been correspondance with Professor E. S. Pearson, Managing Editor of *Biometrika*, on the question of a possible reduction of the subscription rate of *Biometrika* for our members. As a result of these discussions, Professor Pearson offered certain reductions, provided that a sufficient number of subscribers can be secured. Detailed information on this was contained in a memorandum of the

Secretary, P. S. Dwyer, in the November mailing to the membership. It is hoped that many of our members will make use of this opportunity.

With the new constitutions of the American Statistical Association and the Institute of Mathematical Statistics adopted, the way is cleared for the consideration of possible federation plans of the various statistical organizations by the Inter-Society Committee on Federation. J. H. Curtiss and P. S. Olmstead continued to serve as our representatives on the aforementioned committee during 1948. W. Feller was our representative on the Policy Committee for Mathematics, and F. C. Mosteller and S. S. Wilks represented the Institute on the Joint Committee for the Development of Statistical Application in Engineering and Manufacturing. W. Bartky was reappointed for a three-year term as our representative to the Division of the Physical Sciences of the National Research Council, and H. Hotelling was our representative to the American Association for the Advancement of Science.

In conclusion, I wish to thank all committee members and others who participated in the work of the Institute during the past year. The heaviest burden falls, of course, on the Secretary and it is hard to express adequately our appreciation for his unselfish efforts and devotion. The smooth and efficient conduct of the affairs of the Institute is largely due to his work.

ABRAHAM WALD
President, 1948

December 31, 1948

REPORT OF THE SECRETARY-TREASURER OF THE INSTITUTE FOR 1948¹

At the beginning of 1948 the Institute had 1037 members and during the period covered by this report 126 new members (13 of whom begin their membership with 1949) joined the Institute and two members were re-instated. During 1948 the Institute lost 64 members of which 24 were by resignation, 38 by suspension for non-payment of dues and 2 by death. Judging from the information available at this date, the Institute will have 1101 members as it starts 1949.

Deceased during the year were Dr. Otis A. Pope and H. M. Tompkins.

Meetings of the Institute held during 1948 included those at Columbia University on April 14-15, at the Berkeley campus of the University of California on June 22-24, at the University of Wisconsin on September 6-10, at the University of Washington on November 26-27, and at Cleveland on December 26-30. The Secretary wishes to call attention to the excellent work of the members who served as assistant secretaries at these meetings: Professor Littauer at New York, Professor Arnold at Madison, Professor Birnbaum at Seattle and Professor Van Voorhis at Cleveland.

¹ This report covers the period January 1, 1948 to December 20, 1948 as the books were closed on December 20, 1948 so that the report could be made at the annual meeting.