

NEWS AND NOTICES

Readers are invited to submit to the Treasurer of the Institute items of interest

Personal Items

Gerald van Belle, has completed the Ph.D. degree at the University of Toronto and is now Assistant Professor of Statistics at the Florida State University, Tallahassee. Dr. van Belle was formerly a statistician at the Connaught Medical Research Laboratories at the University of Toronto.

Ralph A. Bradley has returned to the Florida State University, Tallahassee, Florida after a period as a Ford Foundation Project Specialist at the Institute of Statistical Studies and Research, University of Cairo, Cairo, U.A.R.

Gwenda J. Cane is a Visiting Instructor at the Florida State University, Tallahassee for the 1967-68 academic year. Miss Cane is a Fullbright Scholar from the University of New England, Armidale, New South Wales, Australia.

Dr. William G. Cochran, Professor of Statistics, Harvard University, has been awarded the 1967 Samuel S. Wilks Memorial Medal.

Devendra Gupta, formerly of Howard University, Washington, D. C. has joined the Villanova University, Villanova, Pa. as Assistant Professor of Mathematics.

T. V. Hanurav, formerly Visiting Professor at Michigan State University, is Visiting Associate Professor at the Institute of Statistics, Texas A & M University.

Professor Samuel Kotz of the University of Toronto has been appointed to a professorship in the Department of Mathematics at Temple University.

Dr. Jyotiprasad Medhi is now on leave from the University of Gauhati, India and is working as a Visiting Professor at the Department of Mathematics, University of Montreal, Canada for the academic year 1967-68.

N. U. Prabhu has been promoted to Professor in the Department of Operations Research, College of Engineering, Cornell University.

Jack Sawyer, formerly at the University of Chicago, is now Associate Professor of Psychology and Sociology at Northwestern University.

Robert J. Serfling, after receiving his Ph.D. at the University of North Carolina, has joined the Department of Statistics, the Florida State University, Tallahassee as Assistant Professor of Statistics.

Ismail N. Shimi, from Ain-Shams University, Cairo, Egypt, U.A.R., is Assistant Professor in the Department of Statistics, Florida State University, Tallahassee.

Daniel L. Solomon is now Instructor in the Department of Statistics, Florida State University, Tallahassee.

Dr. John E. Walsh joined the faculty of the Department of Statistics, Southern Methodist University, in the fall of 1967 as Mobil Professor on an appointment supported by the Mobil Foundation. Dr. Walsh was formerly Senior Scientist

for Operations Research and Statistics at the System Development Corporation, Santa Monica, California.

William W. Wolman has been named Chief of the Traffic Systems Division, Office of Research and Development, U. S. Bureau of Public Roads. He is also a Professorial Lecturer in Statistics at The George Washington University.

New Members

Ballard, Robert John, B.S., (Central Michigan University); N.S.F. Trainee, Department of Statistics and Probability, Michigan State University.

Dinsmore, Bruce M., B.S., (McNeese State College); Student, Virginia Polytechnic Institute.

Fabian, Vaclav, RNDr., (Charles University); Research Mathematician, Institute for Information Theory and Automation, Czechoslovak Academy of Sciences, Czechoslovakia.

Fenger, Kirsten, Cand. Stat., (University of Copenhagen); Research Assistant, Institute of Medical Genetics, University of Copenhagen.

Foil, Ray K., Jr., M.B.A., (Louisiana State University); Graduate Assistant, Division of Research, Louisiana State University.

Izneman, Alan Julian, B.Sc., (University of London); Graduate Student, Department of Statistics, University of California, Berkeley.

Kalish, George, M.A., (University of Maryland); Assistant Professor of Math, Howard University.

Kihlstrom, Richard E., B.A., (Purdue University); Graduate Student, Department of Economics, University of Minnesota.

Krossner, William J., Ph.D., (Harvard University); Assistant Professor in Psychology, Vassar College.

Lee, Guan Parr, B.Sc., (University of Singapore); Student, Department of Statistics and Operations Research, University of Pennsylvania.

Levy, Theodore E., B.A., (Michigan State University); N.D.E.A. Trainee, Department of Statistics and Probability, Michigan State University.

Moerdyk, Paul A., B.S., (Calvin College); Student, Department of Statistics and Probability, Michigan State University.

Nelson, Paul C., B.S., (University of Arkansas); Project Engineer, NASA-G.C. Marshall Space Flight Center, Redstone Arsenal, Alabama.

Parish, Robert G., B.Sc., (University of London); Graduate Student, North Carolina State University.

Parker, Roger A., B.S., (University of Washington); Student, University of Washington.

Powers, William A., B.S., (University of Richmond); Student, Department of Statistics, University of Connecticut.

Priddy, Lawrence Harwood, B.S., (Bucknell University); Student, Bucknell University.

Rafter, John A., B.S., (University of Michigan); Student, Department of Statistics and Probability, Michigan State University.

- Randles, Ronald H.**, M.S., (Florida State University); Student, Statistics Department, Florida State University.
- Riskalla, Magdy G.**, M.S., (Purdue University); Graduate Student, Purdue University.
- Thyregod, Poul**, Cand. Stat., (University of Copenhagen); Scientific Assistant, University of Copenhagen.
- Townsend, Edwin C.**, M.S., (West Virginia University); Student, Cornell University.
- Sun, Evan H. W.**, M.S., (North Carolina State University); Graduate Student, North Carolina State University.
- Swales, Luita Booth**, M.J., (University of California, Berkeley); Graduate Student, University of California, Los Angeles.
- Swanson, Richard W.**, M.S., (Iowa State University); Senior Scientist, Booz-Allen Applied Research, Inc., Los Angeles, California.
- De Waal, Daniel J.**, M.Sc., (University of the Orange Free State); Lecturer, Department of Statistics, University of the Orange Free State, Bloemfontein, South Africa.
- Weber, William R.**, M.S., (Southern Methodist University); Project Statistician, Geotech A. Teledyne Company, Dallas, Texas.
- West, Charles A.**, A.B., (University of California, Berkeley); Graduate Assistant, Michigan State University.

SECOND INTERNATIONAL SYMPOSIUM ON MULTIVARIATE ANALYSIS

The Second International Symposium on Multivariate Analysis will be held at Wright-State University, Dayton, Ohio during the period of June 17–22, 1968. Invited papers will be presented at the symposium, covering both methodology and applications. Attendance at the symposium is open to anyone interested. Inquiries regarding the symposium should be addressed to the symposium chairman Dr. P. R. Krishnaiah, Aerospace Research Laboratories, Wright-Patterson Air Force Base, Ohio 45433.

EUROPEAN MEETING ON STATISTICS

A European meeting on statistics, econometrics and management science will be held in Amsterdam from 2 to 7 September 1968. The Conference is a joint venture of the Institute of Mathematical Statistics (IMS), the International Association for Statistics in Physical Sciences (IASPS—a section of the ISI), the Econometric Society (ES) and The Institute of Management Sciences (TIMS).

The organisation of the conference is undertaken by the Mathematical Centre in Amsterdam in collaboration with the Permanent Office of the ISI. An Organizing Committee has been set up and is composed of:

Prof. J. Hemelrijk (chairman, representing IMS), Prof. H. C. Hamaker

(representing IASPS), Prof. P. de Wolff (representing ES), Prof. S. de Leve (representing TIMS) and Drs. E. Lunenberg (ISI Permanent Office).

The programme will include *invited papers* (providing surveys on general and special subjects, and papers showing the results of new research) as well as *contributed papers*. The Programme Committee is composed of the first four members of the Organizing Committee, together with Prof. P. Wittle (IMS), Prof. M. S. Bartlett (IASPS), Prof. J. A. Mirrlees (ES) and Prof. G. Morton (TIMS). Those wishing to present a contributed paper are requested to advise the secretariat of the conference *not later than* 1 March 1968.

Details about the conference, requirements for the submission of papers and registration forms will be communicated toward the end of 1967 to the members of the societies concerned. Non-members wishing to receive further information may write to the secretariat of the Conference.

All correspondence should be addressed to the Secretary of the meeting, Mrs. S. J. Kuipers-Hoekstra, Mathematical Centre, 2e Boerhaavestraat 49, Amsterdam, Netherlands.

P. I. B. INTERNATIONAL SYMPOSIUM ON TURBULENCE OF FLUIDS AND PLASMAS APRIL 16-18, 1968

Turbulence of Fluids and Plasmas is the topic of the eighteenth in the Polytechnic Institute of Brooklyn series of annual international symposia. This symposium will be held at the Waldorf-Astoria Hotel in New York City on 16-18 April 1968.

Contributed papers are invited up to the deadline of 15 January 1968. For consideration, a 500 word abstract should be submitted. Selection of papers will be facilitated by inclusion of draft material and/or essential results as appropriate. Please address all correspondence to:

P. I. B. Symposium Committee
333 Jay Street, Brooklyn, N. Y. 11201
Attn: Jerome Fox, Executive Secretary

GRADUATE PROGRAM AT TEMPLE UNIVERSITY

The Department of Mathematics at Temple University announces an expansion of its Graduate Program in Mathematics. Starting in the Academic Year 1968-69, the Department will offer a series of courses leading to the M.A. and Ph.D. degrees in Mathematics with specialization in Probability Theory and Mathematical Statistics.

Fields of Specialization include: Multivariate Analysis and Distribution Theory, Applied Probability, Information and Coding Theory, Nonparametric Methods and Design of Experiment.

A limited number of Assistantships and Fellowships is available.

For further details contact:

Dr. A. Schild, Chairman
Department of Mathematics
Temple University
Philadelphia, Pa. 19122

NEW FELLOWS

The Council of the Institute of Mathematical Statistics, following the recommendations of the Committee on Fellows, has elected nineteen new fellows. Their names are

Yuan S. Chow	Seymour Geisser	Jacques J. P. Neveu
David B. Duncan	Ramanathan Gnanadesikan	Johann Pfanzagle
Roger H. Farrell	Franklin A. Graybill	Frank Proschan
Walter T. Federer	Max Halperin	R. E. Tate
Thomas S. Ferguson	Robert Vincent Hogg	G. Barrie Wetherill
David A. Freedman	Konrad Jacobs	Martin B. Wilk
	Harry Kesten	

REPORT OF THE PRESIDENT FOR 1967

During the year the Institute carried on its usual activities, as described in detail in the reports of the other officers. There were several changes in officers. George Nicholson, Jr. is retiring as Executive Secretary and is being replaced by Leo Katz. Donald Burkholder retired as Editor and was replaced by Z. W. Birnbaum. A constitutional amendment was passed adding the office of Managing Editor to the list of officers. Paul Meyer, who had served in this capacity for three years, accepted another three-year term.

The following people constitute next year's Committee on Nominations: R. Bechhofer, H. D. Brunk (chairman), Y. S. Chow, Thomas Ferguson, Samuel Greenhouse, David Hanson, J. F. C. Kingman, Harold Ruben and Martin Wilk.

Here are some additional activities of the Institute. A memorial volume of the collected papers of S. S. Wilks was sponsored by the Institute, edited by T. W. Anderson and has just been published by Wiley. The IMS participates with other statistical organizations in a program of visiting lecturers in statistics who visit campuses that do not have graduate programs in statistics, to lecture on topics in modern statistics, discuss careers, etc. The program has gone on for several years, and the Institute is reapplying to the NSF for support for next year. A book by Bechhofer, Kiefer, and Sobel, *Sequential Ranking and Identification Procedures*, sponsored by the IMS-University of Chicago Statistical Research Monograph Series, is now in press.

T. E. HARRIS

REPORT OF THE EDITOR 1967

During the year July 1, 1966, to June 30, 1967, 414 manuscripts were submitted to the *Annals* compared to 368 for the preceding year and 369 for the year before that. The 1967 volume of the *Annals* contains 209 papers, 119 appearing within one year of the submission of the original manuscript.

As the work of our three year term nears completion, special thanks go to my colleagues who carried the major share of the editorial responsibilities:

R. R. Bahadur	Alan T. James
Herman Chernoff	Samuel Karlin
A. P. Dempster	J. H. B. Kemperman
J. L. Doob	J. Kiefer
Sylvain Ehrenfeld	William Kruskal
G. Elfving	E. L. Lehmann
James F. Hannan	Ronald Pyke
Wassily Hoeffding	R. A. Wijsman

Thanks are due also to the many individuals who helped with the refereeing. Listed below are the names of referees of papers for which final editorial decisions were made during the year ending August 31, 1967.

D. L. BURKHOLDER

Addelman, S.	Capon, J.	Dwyer, P. S.
Aggarwal, O. P.	Carlyle, J. W.	Eaton, Morris L.
Albert, A.	Chakravarti, I. M.	Efron, Bradley
Anderson, T. W.	Chapman, D. G.	Ericson, W. A.
Ash, R.	Chatterjee, S.	Falkner, B.
Austin, D.	Chow, Y. S.	Farrell, Roger H.
Baranchik, A. J.	Chung, K. L.	Feder, Paul
Barankin, E. W.	Clatworthy, W. H.	Federer, W. T.
Bartholomew, D. J.	Cochran, W. G.	Feldman, J.
Basu, D.	Commins, W.	Feller, W.
Batchelor, G. K.	Constantine, A. G.	Ferguson, Thomas S.
Bather, J.	Cornish, E. A.	Fienberg, S.
Benes, V.	Cote, Louis	Fishburn, P. C.
Berk, R.	Craswell, J.	Fisher, L.
Berman, S. M.	Crawford, Gordon	Fraser, D. A. S.
Bhattacharyya, M.	Darling, D.	Freedman, David A.
Bickel, Peter J.	David, F. N.	Gans, Daniel
Billingsley, Patrick	David, H. A.	Gastwirth, J. L.
Bishop, E.	David, Herbert T.	Geisser, S.
Blackwell, David	Davis, A. M.	Gentleman, M.
Blumenthal, S.	Davis, W.	Ghosh, J. K.
Blyth, C. R.	DeGroot, Morris H.	Ghosh, S. P.
Bohrer, R.	Derman, Cyrus	Gilbert, E. J.
Breiman, Leo	Doksum, K.	Gleser, L.
Brillinger, David	Draper, N. R.	Godambe, V. P.
Brown, L.	Dubins, L.	Goldman, J.
Brunk, H. D.	Dunn, O. J.	Good, I. J.
Buehler, R. J.	Dvoretzky, A.	Goodman, Leo
Cacoullos, T.	Dwass, Meyer	Gross, S.

Gundy, R.	Lukacs, E.	Savage, L. J.
Gupta, S. S.	Madow, W. G.	Schaufele, Ronald A.
Hachigian, J.	Mahamunulu, D. M.	Schulzer, M.
Haggstrom, G.	Majindar, K. N.	Schwartz, R. E.
Hájek, Jaroslav	Margolin, B.	Scott, Alastair
Hall, J.	Matern, B.	Sclove, S. L.
Hall, W. J.	Mazumdar, S.	Seiden, Esther
Hampel, F.	Mikulski, P.	Sethuraman, J.
Hanjek, J.	Millar, P. W.	Shepp, L. A.
Hannan, J. F.	Miller, R. G., Jr.	Siegmund, David
Harris, B.	Morris, Carl	Simons, G.
Harris, T. E.	Mosteller, Frederick	Skibinsky, M.
Harter, H. L.	Neuts, M. F.	Sobel, M.
Hartigan, J. A.	Ney, Peter	Spitzer, Frank
Hartley, H. O.	Noether, G.	Srivastava, J. N.
Healy, M. J. R.	Norman, F.	Starr, N.
Hills, M.	Olkin, Ingram	Stein, Charles M.
Hoadley, A. B.	Olson, M. P.	Stone, C.
Ho, Y. C.	Owen, D. B.	Studden, W.
Hogg, R.	Parker, E. T.	Suppes, P.
Holland, Paul	Parzen, E.	Surendran, P. U.
Huber, Peter	Pathak, P. K.	Switzer, Paul
Hudson, D. J.	Pinkham, R. S.	Takacs, L.
Isaac, R.	Portnoy, S.	Teicher, H.
Jain, N. C.	Potthoff, R. F.	Tenenbein, A.
John, Peter W. M.	Prabhu, N. U.	Thompson, W. A.
Johns, M. V., Jr.	Press, S. J.	Tiao, G.
Kadane, Jay	Proschan, Frank	Toulmin, G. H.
Keilson, J.	Pruitt, W.	Truax, Donald R.
Kesten, Harry	Purves, R.	Tucker, H.
Kiefer, J.	Quade, Dana	van Eeden, Constance
Klotz, Jerome	Rao, B. L. S.	van Elteren, P.
Knight, Frank	Rao, C. R.	Van Ryzin, J.
Koch, G.	Rao, M. M.	Varadarajan, V. S.
Konijn, H. S.	Robbins, H.	Venter, J.
Krantz, David	Rohatgi, V. K.	Weiner, H. J.
Kruskal, W.	Root, David	Weiss, Lionel
Lamperti, J.	Rosenblatt, Murray	Wendel, J. G.
Lawton, W. H.	Rota, Gian-Carlo	Woodworth, G.
Leadbetter, M. R.	Ruben, Harold	Yahav, J.
LeCam, Lucien	Runnenburg, J.	Ylvisaker, D.
Lehmann, Vida	Sacks, Jerome	Zacks, S.
Leysieffer, F. W.	Samuel, Esther	Zidek, J.
Lieberman, G. J.	Särndal, C. E.	Zyskind, George

REPORT OF THE TREASURER FOR 1967

The Institute had 2736 paid members in 1967, in all membership categories. For comparison purposes a breakdown of the membership is given for each of the years 1965, 1966, and 1967.

	1965	1966	1967
U. S.—Canada Members	1750	1757	1751
Outside U. S.—Canada Members	516	499	517
Student Members	437	391	386
Institutional Members	54	55	57
Life Members	27	27	25
Total Members:	2784	2729	2736

As can be seen the membership underwent a very slight decline, almost entirely due to loss of student memberships.

The fiscal report which follows covers the period January 1, 1966 to June 30, 1967. A certified audit of the Institute's fiscal affairs appears in the December 1967 issue of the *Annals*.

Receipts from all major sources of income were at an all-time high. As a result, and in spite of a continuing upward trend in costs, the Institute enjoyed the largest excess of income over outgo in its history, amounting to \$68,729.74. For the 18-month period the excess averaged \$3,818 per month.

An average surplus of like magnitude is not possible for the 12-month period which will end on June 30, 1968. Most costs are up. During 1967 the publisher imposed an 8.4 % increase on production costs of the *Annals*, and he has announced still another increase of 6.6 % for 1968. For the first 5 months following June 1967 page-charge receipts are running \$250 per month behind the average of the previous 18-month period.

However, largely because of the dues and subscription rate rises which went into effect on January 1, 1966, the next 12-month period to be reported on will still show a substantial excess of income over expenditures of at least \$25,000 and the excess may well exceed \$30,000.

Receipts from dues and subscriptions now barely match expenditures. Page-charge receipts and profits from back-issue sales account for the surpluses the Institute has had for the past 3 years. With costs rising every year deficits will be averted in the future only if receipts from back-issue sales and page-charges continue at a high level.

In summary, the size of the Institute's membership has been on a plateau for 3 years. Because of steadily rising costs, especially in the production of the *Annals* by its publisher, even the recent dues increase will not avert eventual deficit operation, unless page-charge receipts and back-issue sales continue at a high level, or a less expensive method of producing the *Annals* can be found. As a result of 3 years of surpluses, with perhaps at least 3 more years of some surpluses, the Institute's cash reserve will have increased to a level which will enable it to meet operating deficits for a few years after such deficits reoccur, or until new sources or higher levels of revenue can be found, or the production costs of the *Annals* can be reduced.

As can be seen, the Institute's financial position is presently very sound. How-

ever, the Institute's members and the Council should be aware that this situation cannot be considered as permanent without measures being taken.

GEORGE RESMIKOFF

REPORT OF THE PROGRAM SECRETARY FOR 1967

The 29th Annual Meeting of the Institute, the 111th meeting, was held at Rutgers University, New Brunswick, New Jersey, August 30–September 2, 1966, in conjunction with the summer meetings of the American Mathematical Society, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics. Bernard Harris (U. S. Army Mathematics Research Center) was chairman of the Program Committee and Saul Blumenthal was Assistant Secretary in charge of local arrangements. A Special Invited Paper was presented by D. Freedman, University of California, Berkeley, on "Some Invariance Principles for Functionals of a Markov Chain." The IBM Corporation and Bell Telephone Laboratories assisted the University to meet the expenses of the meeting; the Institute acknowledges gratefully their generous gifts.

The European Regional Meeting, the 112th meeting, was held at the Imperial College of Science and Technology, London, England, September 5–10, 1966, as part of a European Meeting of Statisticians organized jointly by the Institute together with the Royal Statistical Society and the International Association for Statistics in Physical Sciences. Peter Whittle (University of Manchester) served as chairman of the joint Program Committee and M. H. Quenouille was chairman of the Organizing Committee. The International Statistical Institute collaborated in the organization of the meeting.

The Central Regional Meeting, the 113th meeting, was held at Ohio State University, Columbus, Ohio, March 23–25, 1967. Bruce Hill (University of Michigan) was Program Chairman and D. R. Whitney was Assistant Secretary for the meeting.

The Eastern Regional Meeting, the 114th meeting, was held at the Georgia Institute of Technology, with the collaboration of Emory University, Atlanta, Georgia, April 3–5, 1967, in conjunction with meetings of the Biometric Society (Eastern North American Region) and the American Statistical Association. R. E. Bargmann (University of Georgia) was Program Chairman and J. W. Walker was Assistant Secretary of the meeting.

The Western Regional Meeting, the 115th meeting, was held at the University of Montana, Missoula, Montana, June 15–17, 1967, in conjunction with sectional meetings of the American Mathematical Society, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics. N. D. Ylvisaker (University of Washington) was Program Chairman and H. E. Reinhardt was Assistant Secretary for the meeting.

The regional Associate Program Secretaries during this year were B. M. Kurkjian, Harry Diamond Laboratories (Eastern), R. V. Hogg, University of

Iowa (Central), R. F. Tate, University of Oregon (Western), and P. Whittle, University of Manchester (European).

To all of the persons whose time has been given for organizing meetings, and to the institutions that made it possible for them to do so, the Institute is deeply indebted. Host institutions in particular have given generous support to the Institute's meetings by providing facilities and services.

JOAN RAUP ROSENBLATT

REPORT OF THE MANAGING EDITOR FOR 1967

Starting with the February issue of 1967, and continuing for the remaining issues of that year, Waverly Press imposed another overall cost increase—this time 8.4 %. This increase means that it now costs us approximately \$34.00 per page to produce the *Annals* or about \$68,000 for the six issues published in 1967. Unfortunately, this ever-increasing cost spiral show no signs of tapering off. We have just been informed that beginning with the February 1968 issue another increase will go into effect, amounting to 6.6 %. This will raise the cost per page to about \$36.00.

Because of the high cost of producing the *Annals*, and the obvious indication that these costs will rise even higher, considerable effort has been expended by this office to investigate the possibility of reducing the composition and printing costs. In particular, the possibility of overseas printing was considered. A firm bid has been received from Jerusalem Academic Press and cost estimates have been received from William Clowes and Sons, a printing firm in London. These various alternatives were discussed at the Annual Meeting. It was decided, however, to continue our arrangement with Waverly Press.

The Managing Editor's Office will continue to be maintained in the Mathematics Department of Washington State University in Pullman for the coming year. I would like to thank again the University for generously supporting this activity by supplying office space and for relieving me of certain duties to allow for time spent on editorial matters. I would like to thank Mrs. Joan Hill, the editorial assistant, for the sincere interest she has developed in the *Annals*, thus taking over most of the routine matters. And finally, I wish to thank Professor Norman Y. Luther of this department for assuming some of my duties and acting in my capacity from August 1967 to August 1968 while I am away on leave.

PAUL L. MEYER

PUBLICATIONS RECEIVED

- ALBERT, ARTHUR E. and GARDNER, LELAND A., JR. (1967). *Stochastic Approximation and Nonlinear Regression*. MIT Press. xv + 204 pp. \$16.50.
- CHOVER, JOSHUA. (1967). *Markov Processes and Potential Theory*. John Wiley & Sons. x + 235 pp. \$7.95.