

## NEWS AND NOTICES

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

### Personal Items

Dr. Max Astrachan, Logistics Department, The RAND Corporation, has received a part-time appointment to the faculty of the Graduate School of Business Administration, University of California at Los Angeles, as Lecturer (Professor).

William S. Bennett has joined Sylvania's Reconnaissance Systems Laboratory, Mountain View Calif. Formerly an operations analyst at John Hopkins' Operations Research Office, he remains a doctoral candidate in statistics at The American University.

Benjamin Buchbinder has accepted a position with the General Electric Company, Special Programs Section, Defense Systems Department, as engineer-systems analyst.

Dr. William R. Buckland has resigned from London Transport Executive to take charge of the new Statistical Advisory Service of The Economist Intelligence Unit Ltd., 22, Ryder Street, London, S.W.1.

Dr. Maria Castellani has accepted a new position as Professor of Mathematics and Chairman of the Mathematics Department, Fairleigh Dickinson University, Teomeck, N. J. Dr. Castellani was formerly Chairman of the Mathematics Department and Lina Hasq Professor, University of Kansas City, Kansas City, Mo.

Martin Dorff completed his Ph.D. in statistics at Iowa State University in June 1960, whereupon he joined the staff of the Department of Mathematics at the University of Maine.

Dr. David B. Duncan has accepted a position as Professor of Statistics in the Department of Biostatistics, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Maryland. Dr. Duncan was formerly a Visiting Professor in the Department of Statistics, University of North Carolina.

Dennis J. G. Farlie is currently on leave of absence from the General Electric Company (England) to work at the Bell Telephone Laboratories for one year, October 1960–October 1961.

Dr. J. Hemelrijk, formerly Professor in Statistics at the Technical University, Delft, Holland, has been appointed Professor in Mathematical Statistics at the University of Amsterdam. He has also been appointed Head of the Statistical Department of the Mathematical Centre, 2e Boerhaavestraat 49, Amsterdam (0), Holland.

Mr. Seymour Jablon, Statistician in the Division of Medical Sciences, National Academy of Sciences–National Research Council, is currently in Japan as head of the statistics department, Atomic Bomb Casualty Commission, a research agency of the NAS–NRC operated in cooperation with the Japanese Government. With a staff of U. S. and Japanese statisticians and related medical

scientists he is devoting himself to the study of late radiation effects of the bombs dropped on Hiroshima and Nagasaki. Mr. Jablon and Dr. Gilbert W. Beebe are currently rotating this responsibility, Dr. Beebe's first tour having been 1958-1960.

Mr. J. N. K. Rao, an advanced graduate student in Statistics at Iowa State University, has been selected as the recipient of the George W. Snedecor Award in Statistics, which consists of a cash prize of \$25.00, a year's membership in the Institute of Mathematical Statistics and a year's subscription to the *Annals of Mathematical Statistics*.

P. V. Rao has resigned his position as lecturer in statistics in the College of Science, Nagpur, India and has joined the Department of Mathematics of the University of Georgia at Athens, Georgia, on a scholarship awarded by the Georgia Rotary Students Fund.

David Rothman has accepted a position as Member of the Technical Staff at Systems Laboratories, a division of Electronic Specialty Co., 5121 San Fernando Road, Los Angeles 39, California.

Robert R. Read is currently a visiting assistant professor in the Department of Statistics at the University of Chicago.

Esther Seiden, formerly at Northwestern University, Evanston, Illinois has been appointed associate professor at Michigan State University, East Lansing, Michigan.

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### NEW MEMBERS

*The following persons have been elected to membership in the Institute*

- Alberda, Willis J.**, A.B. (Calvin College); Student, Montana State College, Bozeman, Montana; *RR no. 1, Box 128, Manhattan, Montana.*
- Anderson, Donald A.**, B.A. (Macalester College); Graduate Student, University of Nebraska, Lincoln, Nebraska; *535 North 16th St., Lincoln, Nebraska.*
- Antelman, Gordon R.**, M.A. (University of Minnesota); Research Associate, *Harvard University, Graduate School of Business Administration, Soldiers Field, Boston 63, Mass.*
- Arkin, Herbert**, Ph.D. (Columbia University); Professor, *City College of New York, 17 Lexington Ave., New York, N. Y.*
- Arora, Manmohan Singh**, M.A. (Delhi School of Economics, India); Research Assistant, *Department of Economics, University of Minnesota, Minneapolis 14, Minn.*
- Bailey, Daniel E.**, Ph.D. (University of California); Postdoctoral Research Fellow, *Department of Statistics, University of California, Berkeley 4, California.*
- Batschelet, Edward**, Professor (Extraordinarius), (University of Basle, Switzerland); Visiting Professor *Department of Mathematics, The Catholic University of America, Washington 17, D. C.*
- Battenberg, Robert A.**, Ph.D. (Stanford University); Chief, Mathematical and Statistical Analysis, Personnel Laboratory, Wright Air Development Division, USAF, Box 1557, Lackland A.F.B., San Antonio, Texas; *2666 W. Summit, San Antonio, Texas.*
- Bayo, Francisco**, M.S. (University of Michigan); Actuary, *Division of the Actuary Social Security Administration, Washington 25, D. C.*
- Bein, Norman**, B.A. (Brooklyn College); Mathematician, *Aerojet-General Corp., Dept. 6620, P.O. Box 1947, Nimbux, California.*
- Bhattacharyya, Bibhuti Bhushan**, Ph.D. (London School of Economics and Political

- Science); Visiting Associate Statistician, North Carolina State College, Department of Experimental Statistics, Raleigh, N. C.
- Black, Barbara C.**, B.S., (Florida A and M University); Instructor of Mathematics, Florida A and M University, Tallahassee, Florida; *Box 122, Florida A and M University, Tallahassee, Florida.*
- Blake, William Henry, Jr.**, A.B. (The George Washington University); Student, George Washington University; *2121 H. St. Apt. 404, Washington 7, D. C.*
- Bograd, Naomi**, A.B. (Bryn Mawr College); Associate Member of Technical Staff, *Bell Telephone Laboratories, Whippany, New Jersey.*
- Brandt, Edward N., Jr.**, M.D. (University of Oklahoma); Intern in Medicine, VA Hospital, 921 N.E. 13th, Oklahoma City, Okla.; *Rt. 4, Box 285, Oklahoma City 11, Oklahoma.*
- Branson, Michael**, Ph.D. (University of London); Research Mathematician, Carnegie Institute of Technology, Schenley Park, Pittsburgh 13, Pa.; *4947 Wallingford Street, Pittsburgh 13, Pa.*
- Breiman, Leo**, Ph.D. (University of California); Assistant Professor, *University of California at Los Angeles, Department of Mathematics, Los Angeles 24, California.*
- Brown, Geoffrey John Hatton**, Mathematician, Regional Highway Planning Committee, *499 Pennsylvania Avenue, N.W.*, Washington 1, D. C.; *1133 24th Street, N.W., Apt. C., Washington 7, D. C.*
- Clelland, Richard C.**, Ph.D. (University of Pennsylvania); Assistant Professor, University of Pennsylvania; *Department of Statistics, Dietrich Hall, University of Pennsylvania, Philadelphia 4, Pennsylvania.*
- Cobb, E. Benton**, B.Sc. (University of Nebraska); Graduate Student in Mathematics, University of Nebraska, Lincoln, Nebraska; *3200 "R" St., Lincoln, Nebraska.*
- Colombo, Bernardo**, "Laurea" in Economics and Commerce (Catholic University of Milan); Professor of Statistics, Instituto Universitario di Venezia Facoltà di Economia e Commercio, Cà Foscari, Venice, Italy.
- Costello, Donald F.**, M.S. (Notre Dame); Teaching Assistant, Department of Mathematics, University of Nebraska, Lincoln 8, Nebraska; *1305 S. 13th St., Lincoln, Nebraska.*
- Drier, Karen**, A.B. (The George Washington University); Graduate Teaching Assistant, The George Washington University; *925 25th St., N.W., Apt. 615, Washington 7, D. C.*
- DeLisser, Oswald George**, B.Sc. (University College of West Indies); Agricultural Officer, Division of Economics and Statistics, Jamaica, West Indies, Hope, Kingston 6, Jamaica, W. I.; *Department of Statistics, University of Aberdeen, Meston Walk, Aberdeen, Scotland.*
- Fair, William R.**, M.S. (Stanford University); President, *Fair, Isaac and Co., Inc., 156 Montgomery St., San Francisco, California.*
- Friedman, Herman P.**, M.A. (Brooklyn College); Senior Mathematician, System Development Corp. Paramus, N. J.; *765 Riverside Drive, New York 32, N. Y.*
- Fukushima, Kozo**, B.S., (Roosevelt University); Research Assistant, Department of Statistics, University of North Carolina; *320 Connor Dorm., Chapel Hill, N. C.*
- Geisler, Murray A.**, M.A. (Columbia University); Manager, Logistics Systems Laboratory, Rand Corporation, 1700 Main St., Santa Monica, California; *Department of Mathematical Statistics, Stanford University, Stanford, California.*
- Glickstein, Aaron**, Ph.D. (Purdue University); Senior Analyst, Mathematics Section, *Midwest Research Institute, 425 Volker Blvd., Kansas City 10, Missouri.*
- Goldman, Aaron S.**, M.S. (Oklahoma State University); Statistician, *Los Alamos Scientific Laboratory, P.O. Box 1663, Los Alamos, New Mexico.*
- Goodman, Nathaniel R.**, Ph.D. Math. (Princeton University); Member of the Technical Staff, *Space Technology Laboratories, Inc., P.O. Box 95001, Los Angeles 45, California.*
- Grizzle, James E.**, Ph.D. (North Carolina State College); Assistant Professor, *Department of Biostatistics, School of Public Health, University of North Carolina, Chapel Hill, N.C.*

- Harris, Bernice, M.B.A. (New York University); Research Assistant, Yale University Medical School, New Haven 11, Conn.; *3 Riverside Drive, New York 23, N. Y.*
- Harris, Chester W., Ph.D. (University of Chicago); Professor of Education, *University of Wisconsin, Madison 6, Wisconsin.*
- Harrow, Martin, B. Sc. (McGill University); Assistant Professor of Mathematics, *Sir George Williams University, Drummond St., Montreal 26, Quebec, Canada.*
- Hiorns, Robert W., M.A. (University of Edinburgh); Statistician, *Medical Research Council, Department of Human Anatomy, University of Oxford, Oxford, England.*
- Iglehart, Donald L., M.S. (Stanford University); Research Assistant, *Statistics Department, Stanford University, Stanford, California.*
- Jizba, Zdenek V., Ph.D. Geology (University of Wisconsin); Research Geologist, *California Research Corporation, P.O. Box 446, La Habra, California.*
- Kane, Edward James, Ph.D. (Massachusetts Institute of Technology); Assistant Professor of Economics, *Iowa State University, Ames, Iowa.*
- Koop, John Clement, Ph.D. (North Carolina State College); Assistant Professor of *Experimental Statistics, North Carolina State College, P.O. Box 5457, Raleigh, N. C.*
- Korin, Basil P., M.S. (Stanford University); Mathematical Statistician, Bureau of the Census, Washington 25, D. C.; *22 3rd St., S.E., Washington 3, D. C.*
- Kraft, Thomas L., M.B.A. (UCLA); Senior Engineer, Statistical Analysis, Philco-WDL; *3875 Fabian Way, Palo Alto, California; 787 Sunshine Drive, Los Altos, Calif.*
- Lamperti, John W., Ph.D. (California Institute of Technology); Assistant Professor, *Department of Mathematics, Stanford University, Stanford, California.*
- Laska, Eugene M., M.S. (New York University); Student, New York University; *1 Remsen Road, Yonkers, N. Y.*
- Lewis, Peter A. W., M.S. (Columbia University); Engineer, *International Business Machines Corp., Watson Laboratories, 612 W. 116 St., N. Y. 25, N. Y.*
- Long, John Marshall, Ed.D. (University of Virginia); Associate Professor and Acting Chairman, Department of Mathematics, Norfolk College of William and Mary, Norfolk, Va.; *412 Fairfax Ave., Norfolk, Va.*
- Lynch, Cornelius J., M.A. (Georgetown University); Mathematician, David Taylor Model Basin, Carderock, Maryland; *Apt. M-536, 1111 Arlington Blvd., Arlington, Va.*
- Maddala, G. S., M.Sc. (Bombay University, India); Graduate Student, University of Chicago; *Hitchcock Hall, University of Chicago, Chicago 37, Illinois.*
- Mantel, Nathan, M.A. (American University); Head, *Experimental Statistics Section, National Cancer Institute, Bethesda 14, Maryland.*
- Mark, Abraham M., Ph.D. (Cornell University); Professor of Mathematics, Southern Illinois University, Carbondale, Illinois; *Department of Statistics, University of California, Berkeley 4, California.*
- Marshall, Jack A., M.S. in Statistics (The University of Chicago); Student, University of Chicago, Chicago 37, Illinois; *7427 S. Chappel Ave., Chicago 49, Illinois.*
- Menon, Manavashi Vijaya Krishna, Ph.D. (Ohio State University); Senior Associate Mathematician, I.B.M. Corporation, General Products Division, San Jose 14, Calif.; *Department 493, Building 061, I.B.M. Corp., Monterey and Cottle Roads, San Jose 14, California.*
- Meyer, Donald L.; School of Education, Syracuse University; *1646 S. State St., Syracuse 5, N. Y.*
- Miller, Alan John, Ph.D. (Manchester University); Assistant Lecturer, *Statistics Department, University, College London, Gower Street, London W.C.1, England.*
- Moder, Joseph J., *Department of Statistics, Iowa State University, Ames, Iowa.*
- Moss, David M., B.A. (The George Washington University); Student Assistant, Department of Statistics, The George Washington University; *1327 Leegate Road, Washington 12, D. C.*

- Mudholkar, Govind Shrikrishana**, M.Sc. Statistics, M.Sc. Mathematics (The University of Poona, India); Research Assistant, *Department of Statistics, University of North Carolina, Chapel Hill, N. C.*
- Muller, Emil-Roy**, B.Sc. Agric. (University of Natal, South Africa); Student(1), Lecturer in Biometry(2), University of Aberdeen (1), Faculty of Agriculture, University of Natal, South Africa (2) (on study leave); *Department of Statistics, University of Aberdeen, Meston Walk, Old Aberdeen, Scotland.*
- Nacif, Ernest**, B.A. (UCLA); Quality and Reliability Engineering, *Hughes Aircraft Co., Segundo, California.*
- Narayanan, Parameswaran**, M.A. (Madras University, India); Examiner of Trade Marks, Trade Marks Registry, Central Government Buildings, Queen's Road, Bombay; *No. 12, Annapurna Mandir, Adenwalla Road, King's Circle, Bombay 19, India.*
- Norman, Warren T.**, Ph.D. (University of Minnesota); Assistant Professor of Psychology, *Department of Psychology, University of Michigan, Ann Arbor, Mich.*
- O'Fallon, William M.**, M.A. (Vanderbilt University); Student, Department of Statistics, University of North Carolina, Chapel Hill, N. C.; *223 Connor Dorm., Chapel Hill, N. C.*
- de Oliveira, J. Tiago**, Doctor in Mathematics (Lisbon University); Assistant Professor, Faculty of Sciences of the Lisbon University; *Faculdade de Ciencias, R. da Escola Politecnica 58, Lisbon 2, Portugal.*
- Orkand, Donald S.**, M.B.A. (New York University); Research Statistician, *Operations Research Inc., 8605 Cameron St., Silver Spring, Md.*
- Palmour, Vernon E.**, M.S. (University of Wyoming); Operations Analyst, *Technical Operations, Inc., 1435 G. Street, N.W., Room 310, Washington 5, D. C.*
- Park, Heebok**, B.S. (Seoul National University); Student, University of Chicago, Chicago 37, Ill.; *1009 E. 57th St., Chicago 37, Ill.*
- Qureishi, Abdus Salam**, M.S. (Patna University, India); Graduate Assistant, *Department of Mathematics, Case Institute of Technology, Cleveland 6, Ohio.*
- Rényi, Alfred**, Doctor's Degree of the University of Szeged; Director, Mathematical Institute of the Hungarian Academy of Sciences; Professor of Mathematics, University of Budapest; *Budapest, VI. Benczur-u. 28. I.I.S. Hungary.*
- Rich, Judith M.**, B.A. (Marquette University); Student, Department of Statistics, University of North Carolina; *321 Kenan Dormitory, Chapel Hill, N. C.*
- Roberts, Charles D.**, B.S. (Georgia Institute of Technology); Student, Department of Statistics, University of North Carolina; *405-A Smith Avenue, Chapel Hill, N. C.*
- Robinson, Paul D.** B.S. (Brooklyn College); Senior Actuarial Assistant, George B. Buck, Consulting Actuary, 60 Worth Street, New York, N. Y.; *141 East 19th Street, Brooklyn 26, N. Y.*
- Rotkin, Israel, E. E.** (C.C.N.Y.); Chief, *Electromechanical Laboratory, Diamond Ordnance Fuze Laboratories, Washington 25, D. C.*
- Ruben, Harold**, Ph.D. (Imperial College of Science and Technology, London University); Head, *Department of Statistics, The University, Sheffield 10, England.*
- Sanders, Paul G.**, M.S. (Virginia Polytechnic Institute); Staff Statistician, *Abbott Laboratories, Fourteenth and Sheridan, North Chicago, Illinois.*
- Schoeman, Hermanus S.**, M.Sc. (University of Pretoria); Lecturer, *Department of Statistics, University of Stellenbosch, Stellenbosch, Cape Province, Union of South Africa.*
- Seliskar, John L.**, A.B. (John Carroll University); Mathematical Statistician, *Biometrical Studies, U. S. Forest Service, U. S. Department of Agriculture, South Building, Room 3230, Washington 25, D. C.*
- Shumway, Robert H.**, M.S. (Iowa State University); A-HsO, U.S. Public Health Service, Research Branch, Division of Rad. Health, Dept. of Health, Education and Welfare, Washington, D. C.; *Arlington Towers M-732, Arlington 9, Va.*
- Sibuya, Masaaki**, Master of Engineering (Tokyo University); Research Member, Institute

- of Statistical Mathematics, 1 Azabu Huzimi-tyo, Minato-ku, Tokyo, Japan; 44 *Si miyosi-tyo, Sinzyuku-ku, Tokyo, Japan.*
- Smith, J. E. Keith**, Ph.D. (University of Michigan); Staff Psychologist, *Lincoln Laboratory, M.I.T., Lexington 73, Mass.*
- Sorum, Marilyn**, M.A. (University of Minnesota); Graduate Research Psychologist, University of California Medical Center; *Biomechanics Laboratory, 463 U. Hospital, U. C. Medical Center, San Francisco 22, California.*
- Srivastava, Jagdish Narain**, M.Sc. (Lucknow University, India); Student, *Department of Statistics, University of North Carolina, Chapel Hill, N. C.*
- Stewart, Leland T.**, M. Sc. (Stanford University); Research Engineer, Sylvania Electronic Defense Laboratory, Mountain View, California; *237 Edlee Ave., Palo Alto, California.*
- Symonds, Gifford H.**, M.A., (Columbia University); Associate Professor of Management, *Case Institute of Technology, University Circle, Cleveland 6, Ohio.*
- Trumbo, Bruce E.**, A.B. (Knox College); Student, Department of Statistics, University of Chicago, Chicago 37, Illinois; *619 S. Columbia Ave., Springfield, Ill.*
- Vail, Richard W., Jr.**, M.S. (Virginia Polytechnic Institute); Statistical Consultant, Aerojet General Corporation, Azusa, California; *508-A W. Huntington Drive, Arcadia, California.*
- Varley, Thomas C.**, A.B. (The George Washington University); Graduate Teaching Assistant, The George Washington University, Washington, D. C.; *3439 S. Stafford, Arlington 6, Virginia.*
- Vincze Istva'n**, Doctor (Pa'zma'ny Peter University, Budapest); Assistant Director, *Mathematical Institute of the Hungarian Academy of Sciences, Budapest, V. Rea'tlanoda U. 13-15. Hungary.*
- Vind, Karl**, Cand. Polit. (University of Copenhagen); Cand. Polit., Institute of Statistics, University of Copenhagen, Skd. Pederssdræede 19 I, Copenhagen K, Denmark; *Skelhøjen 77, Herlev, Denmark.*
- Viswanathan, Thumbavanam V.**, M.A. (University of Madras); Senior Statistician, Statistical Office, United Nations, New York; *147-23 Charter Road, Jamaica 35, N. Y.*
- Warren, William G.**, M.Sc. (University of New Zealand); Forest Biometrician, Forest Research Institute, P. B. Whakarewrewa, Rotorua, New Zealand; *113 Connor Hall, University of North Carolina, Chapel Hill, N. C.*
- Winter, Robert F.**, M.B.A. (New York University); Teaching Fellow in Statistics, New York University, 100 Washington Square, New York 3, N. Y.; *47 Plaza Street, Brooklyn 17, N. Y.*
- Wrage, Ernst G.**, Doctorium Rerum Naturalium (Universität Freiburg, Germany); Wissenschaftlicher Assistent, Institut für Angewandte Mathematik U. Mechanik, Deutsche Versuchsaustalt für Luftfahrt, Freiburg i.Br., Hebelstr.27, Germany; *Operations Research Group, Dornier-Werke-GmbH. Friedrichshafen, Bodeusee, Germany.*
- Yu, Hi Se**, Assistant Professor, *Department of Mathematics, College of Liberal Arts and Sciences, Chungnam University, Taejon, Korea.*
- Zakich, Daniel**, M.S. (Virginia Polytechnic Institute); Member of the Technical Staff, Hughes Aircraft Company, Ground Systems Group, P.O. Box 2097, Fullerton, Calif.; *10201 Antigua Street, Anaheim, Calif.*
- Zweerus, Hans**; Assistant for Mathematical Statistics, Instituut voor Theoretische Biologie (Leiden University; *Telderskade 2, Leiden, The Netherlands.*

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### TRAVEL GRANTS FOR ATTENDANCE AT THE INTERNATIONAL CONGRESS OF MATHEMATICIANS

Travel grants will be made to a number of mathematicians who wish to attend the International Congress of Mathematicians in Stockholm, on August 15-22,

1962. It is hoped that funds available through various sources may provide travel assistance for a considerable number of mathematicians.

There will be a greater effort than in the past to give aid to younger people. As grants will be made only to those who have filed applications, it is urgent that any who wish to receive a grant should fill out and file an application. Younger people are urged to file applications so that their cases can be considered. Applications can be obtained from the Division of Mathematics, National Academy of Sciences, National Research Council, Washington 25, D. C. by requesting an application for a travel grant to the 1962 International Congress.

The deadline for filing of applications is November 1, 1961, and an attempt will be made to announce the grants by January 1, 1962.

Awarding of grants will be made only to those persons whose applications have been received, in good order, by November 1. The selection will be made by a committee consisting of the regular Committee on Travel Grants of the Division of Mathematics of the National Academy of Sciences—National Research Council enlarged to include representatives of societies affiliated with the Division and representatives of various governmental agencies.

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**CORRECTED ANNOUNCEMENT  
AMS—IMS TRANSLATION PROGRAM**

The IMS in conjunction with the AMS is sponsoring a series of translations of articles in foreign languages, particularly in Russian and Chinese. The first volume of 306 pages has now been published. Suggestions for articles of current interest are chiefly desired, although suggestions for older articles will also be welcome. Suggestions should be sent to the Chairman of the IMS committee dealing with these translations: Professor Wassily Hoeffding, Dept. of Statistics, University of North Carolina, Chapel Hill, North Carolina.

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**BIostatistics PROGRAM AT THE JOHNS HOPKINS  
UNIVERSITY**

Beginning next September, the Department of Biostatistics at The Johns Hopkins University will offer an expanding program of study and research leading to Master of Science and Doctor of Science degrees. The curriculum has been modified by increasing the scope of the basic courses in statistical theory and statistical methods and by the addition of specialized courses including least squares and regression, stochastic processes, nonparametric methods, sampling and survey methods, biological assay, design of experiments and digital computer programming. These changes reflect a realization of the need for more intensively trained statisticians in the areas of biology, medicine and public health, and they are the direct result of the increasingly important role played by mathematics and statistics in all areas of scientific research.

The new program was made possible in part by the recent addition to the

department of Drs. Allyn W. Kimball and David B. Duncan who together with Drs. Helen Abbey, Earl Diamond, John J. Gart and Margaret Martin from the permanent staff. In September, 1961, Dr. Norman T. J. Bailey of Oxford University will join the staff as Visiting Professor and will teach the course in stochastic processes. Additional appointments may be announced shortly.

The department has a limited number of liberal fellowships available, and interested students are invited to write to the Chairman, Department of Biostatistics, 615 North Wolfe Street, Baltimore 5, Md. for further information.

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### FELLOWSHIPS FOR MATHEMATICS GRADUATES AT UNIVERSITY OF CINCINNATI

The Division of Preventive Medicine and the Institute of Industrial Health of the College of Medicine, with the support of the Public Health Service, are instituting a training program in Epidemiology and Biostatistics. As part of this program training and experience will be given in Biology and Research to bright, young prospective candidates for a Ph.D. degree in Mathematics or Statistics. The prospective fellow should have his B.A. or B.S. in Mathematics. He should have decided on a department at which he will want to complete his graduate work. Above all he must have demonstrated a level of achievement that will make him an acceptable candidate for an advanced degree at any university. His program here will consist of two parts extending over a period of two years:

First he will continue to work for an advanced degree. His particular program will be designed in consultation with the Mathematics department of his choice and will emphasize areas of content suggested as pre-requisites. At the same time he will prepare himself to take the examination required of candidates for the Masters degree in Mathematics at this University. This preparation will be done under tutorial arrangements made with the Department of Mathematics. Included in his curriculum will be tutorial readings in Advanced Probability and Biostatistics.

Second the student will receive training in Biology. He will be prepared, by tutorial arrangements during the first summer of his residency, for courses in the sophomore year in the Medical School. He will take Micro-biology, Pharmacology, Industrial Toxicology, selected topics in Industrial Health problems as well as tutorials in Quantitative Epidemiology.

The student will be exposed also to research projects; working with medical and other fellows in this program and in the Institute of Industrial Health. He will be expected to write a publishable paper in some aspects of Mathematical Biology at the end of his two year stay. Arrangements may also be made for him to take additional work or gain additional research experience at another institution. The candidate will receive invaluable experience for a future career in the area of Biology or Mathematics and Statistics. The stipend will depend on qualifications and marital status and will range from \$3400 to \$4400 plus tuition.



For further information write to Dr. Theodor D. Sterling, Department of Preventive Medicine, College of Medicine, University of Cincinnati, Cincinnati, Ohio.

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### ADVANCED DEGREES IN STATISTICS AT THE UNIVERSITY OF NEBRASKA

The Mathematics Department of the University of Nebraska announces the introduction of a curriculum leading to the M.A. or M.S. and Ph.D. degrees in Statistics. A bachelor's degree program in Statistics is also under consideration at present. Courses are offered in Statistical Methods, Statistics for Engineers, Theory of Probability, Information Theory, Methods of Experimental Design, Stochastic Processes, Theory of Games and Statistical Decision Theory, and Topics in Probability and Statistics. Additional courses will be added as needed. A number of assistantships and fellowships are available to qualified students. For information concerning degree requirements and for information concerning assistantships, direct inquiries to Professor Bernard Harris, Department of Mathematics, University of Nebraska, Lincoln 8, Nebraska.

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### SUMMER STATISTICS COURSES AT PURDUE

There will be three intensive courses in statistics and operations research offered at Purdue University this summer.

A ten-day course on the Mathematical Techniques of Operations Research will be offered during June 5-15. It is designed for statisticians, quality control analysts, engineers, and other technical personnel in industrial and management positions. Emphasis will be placed on the mathematical techniques of operations research and the application of these methods to current industrial and military problems. Professor Paul Randolph, of Purdue, is the course director, and Dr. Albert Madansky, of the RAND Corporation, and Professor Bernard Lindgren of the University of Minnesota will be the instructors.

The course on Design of Experiments, during June 7-17, is for statisticians, quality control personnel, engineers, and others concerned with planning, analyzing and interpreting the results of industrial experiments; it is designed for persons who have had previous statistical training. The staff includes Professor Charles R. Hicks of Purdue; Professor Clyde Y. Kramer of Virginia Polytechnic Institute, and Professor Gayle McElrath of the University of Minnesota.

The third course, on Statistical Methods for Advanced Quality Control, is scheduled for September 5-15. Offered at Purdue annually since 1947, this course is designed for those who have had the equivalent of one of the intensive courses in statistical quality control given during and after the War, and who went to learn more about the statistical approach to industrial and research problems. The instructors will be Professors Irving W. Burr and Hicks of Purdue and Professors Cecil C. Craig and McElrath of the University of Michigan.

## NSF OFFERS RESEARCH OPPORTUNITIES TO COLLEGE AND SECONDARY SCHOOL TEACHERS

College and secondary school science teachers will be encouraged to participate in scientific research as a result of two groups of National Science Foundation grant announced today. The grants are part of a continuing Foundation effort to strengthen science education on all levels, and to advance scientific graduate education through participation in basic research.

Grants totaling about \$700,000 were made to 41 educational institutions to provide research participation programs for 350 college teachers of science. A total of \$618,000 was granted 47 institutions for programs for 310 high school teachers. Both programs will enable teachers to help carry out the research projects of a university or college department and to work directly with the researchers in charge of the projects.

The research opportunities will provide a logical step of professional advancement for teachers with the required training who need the stimulation and identity with science that research participation can provide. The grants are expected not only to increase the effectiveness of science teaching, but to contribute to the numbers of active investigators of fundamental scientific problems.

Interested individuals may obtain further information from: SPE (SPISE), National Science Foundation, Washington 25, D. C.

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## UNDERGRADUATES TO PARTICIPATE IN RESEARCH THROUGH NSF GRANTS

Undergraduates will work alongside scientists at more than 250 colleges and universities beginning next summer as a result of new National Science Foundation grants.

The students will have the opportunity to engage in scientific research either as an individual under the supervision of an established scientist, or directly with the scientist as a member of a research team.

The Foundation has made available \$3.2 million in 357 grants through its Undergraduate Research Participation program to help build the interest of superior students in research, to widen their understanding of scientific method, and to improve their ability to employ scientific investigative procedures. The program is now in its third year.

The grants, together with 165 awards made last year, will enable research participation by a total of 2,400 undergraduates during the summer of 1961 and about 1,900 during the 1961 academic year. A number of the grants are for two years, permitting extension through the 1962-3 academic year.

Under the grants about 37 per cent of the participants will work in chemistry, 26 per cent in the biological sciences, 13 per cent in engineering, and 12 per cent in physics, with the remainder in astronomy, geology, mathematics, psychology, and the quantitative social sciences.

## IMS FELLOWS—1960

*The following individuals have recently been elected as Fellows of the Institute of Mathematical Statistics*

|               |                  |
|---------------|------------------|
| R. A. BRADLEY | D. M. GILFORD    |
| T. DALENIUS   | A. T. JAMES      |
| C. DERMAN     | M. V. JOHNS, JR. |
| M. DWASS      | E. PARZEN        |
|               | I. R. SAVAGE     |

## DOCTORAL DISSERTATIONS IN STATISTICS, 1960

The list of doctoral dissertations in statistics and related fields, usually published in the June issue of the *Annals of Mathematical Statistics*, will be published this year in the September issue.

## PUBLICATIONS RECEIVED

- Anuario Estadístico de España*, Edición Manual, Vol. 35, Presidencia del Gobierno, Instituto Nacional de Estadística, Ferraz 41, Madrid, Spain, 1961.
- Graybill, Franklin A., *An Introduction to Linear Statistical Models*, Vol. 1, McGraw-Hill Book Co., New York, 1961, 463 pp. \$12.50.
- Current Projects on Economic and Social Implications of Scientific Research and Development, 1960*, National Science Foundation, 124 pp. (Copies of this manual are available from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. for 40¢ a copy.)
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