

AAAS Annual Elections

The Association's 1976 elections will be held in September. All members will receive ballots in the general election for president-elect, members of the Board of Directors, and members of the Committee on Nominations. Each member who is enrolled in one of the 21 electorates corresponding to the AAAS sections will receive an electorate ballot for section chairman-elect, member-at-large of the section committee, and members of the electorate nominating committee. In addition, ten electorates will elect Council delegates this year. Members who have not yet enrolled in an electorate are invited to inform the Association of the electorate (section) of their choice.

Biographies of all candidates are given below. Candidates for president-elect and for membership on the Board were invited to submit position statements of 500 words and 50 words, respectively. The statements of the candidates for president-elect immediately follow and the statements of the Board candidates who accepted the invitation follow their biographies.

Additional names may be placed in nomination for any position by petition submitted to the Executive Officer not later than 27 July. Petitions nominating candidates for president-elect, members of the Board, or members of the Committee on Nominations must bear the signatures of at least 100 members of the Association. Petitions nominating candidates for any electorate or section position must bear the signatures of at least 50 members of the electorate. A petition to place an additional name in nomination for any position must be accompanied by the nominee's curriculum vitae and statement of acceptance of nomination.

The terms of all officers, Council delegates, and committee members to be elected will begin on 1 January 1977.



Edward E. David, Jr.

The AAAS has two outstanding qualifications as a vital national organization. First, it represents a wider segment of U.S. science than any other single organization. Secondly, it publishes the largest circulation professional scientific magazine. As such, the AAAS can call on a broad based constituency in its activities, and it fills a unique role in scientific communication. These characteristics must be cultivated and form the basis for sustaining and invigorating the AAAS in the future.

The AAAS has approximately 115,000 members drawn from all segments of the scientific community. The life sciences, social sciences, and to a somewhat lesser extent, the physical sciences are well represented. While practitioners in medicine are modestly represented, engineering is even less so. Clearly, an important element of AAAS policy should be to strengthen the membership in these areas. Programs to make the AAAS, its activities, and publication more attractive to a broader constituency have been attempted for some years. This activity needs to be re-examined and augmented since it has had minimal success thus far.

Science is a jewel in the crown of the AAAS. It is appreciated worldwide and finds its way into not only the community of scholars and scientists, but also into the press and industry. The balance of articles and letters provides a strong interdisciplinary communication medium, and this aspect should be reinforced. Just as new developments in scientific disciplines often appear first in *Science* in the Reports section, so we should encourage articles not only on fundamental developments but also on applied work which demonstrates the significance of new knowledge and brings it to the attention of those who can capitalize upon it. It is here too that our community can demonstrate both its essential humanity and its responsibility by bringing out the dangers and opportunities of applied science and technology. The News

and Comment section of *Science* is valuable in projecting an independent view of current happenings relevant to science and technology. If those comments or viewpoints make some people uncomfortable, then so be it!

I believe that the broad constituency and vital communication functions of the AAAS qualify it as well or better than any other organization to influence the national scene. Science and technology have come of age and must assume their proper roles in affairs. This means not only attention to the Washington scene, but also to local governments, industry, and public affairs generally. While the committee structure of the AAAS has made some progress along these lines, a more vigorous effort is required. In particular, the organization should increasingly encourage member participation in committee activities, and these should be reported more fully in *Science*. Ways of coupling these activities effectively to affairs should be pursued with vigor and persistence. Government patrons for AAAS studies and activities should be solicited. The scientific community is fortunate to have an organization of the stature of the AAAS. We must maintain and extend those activities and characteristics which have established the AAAS as a distinguished organization.



Ruth M. Davis

This Bicentennial Year serves well to remind us that individual creativity which underlies all scientific endeavors flourishes best in a free society. It is no accident then that in the last hundred years or so America has become synonymous with scientific freedom and with scientific achievement.

Scientific freedom is not a right. It is a goal for those who do not possess it and it is a privilege to be protected by those of us who have it. The best means for preserving sci-

entific freedom is through the assumption of scientific responsibility. The scientific community is the one community that must commit itself individually and collectively to the practice of scientific responsibility. It has shown most convincingly in the recent past that it wishes to, and knows how to, make this commitment. The AAAS and its members have taken a lead role in demonstrating that scientific freedom can best be protected through assuming scientific responsibility. This is one of the greatest services the AAAS can and should continue to perform. The AAAS, embracing all the sciences, provides possibly the best forum for obtaining the uninhibited and voluntary cooperation of all scientists on such matters of extreme import.

Although our heritage and our tradition are inextricably bound up with a great admiration of science, we have as a society been placing tremendous importance in the last few years on the demonstrable and predictable utility and marketplace value of science. This is a natural phenomenon of a business-oriented society: and indeed the commercial prowess that translates the creations of science into meaningful products for the benefit of each of us has been a major reason for the success story of American science. It provides that continuous spectrum from scientific invention and creativity through technological development and application to usable products that inspires the respect of the world for scientific and technological achievement.

And yet, we must not become so myopic as to allow the value of science and technology to be set only in the marketplace. For the marketplace is a man-made artifact intended to reflect a few, but certainly not all, of the values of a society or a country. Fettering science and technology to serve any such special and near-term interests could be a subtle although presumably unintentional means of limiting scientific freedom. Early recognition of such a threat will preclude the marketplace from possibly becoming an unwitting prison for scientific freedom.

It is, of course, extremely important to have institutions and processes for discussing and deciding on the goals for science and for assigning values to the anticipated results of science and technology. Our society at present lacks such definitive, trusted, and open value-setting mechanisms. Asserting the inadequacy and artificiality of the marketplace as such an institution simply highlights the need to suggest alternatives.

The AAAS, representing, as it does, all the sciences, is a natural spokesman for scientists and technologists. By working with academic institutions and leaders in business and government, the AAAS can provide a tremendous impetus to the establishment of a continuing and trusted mechanism for effecting the best purposeful balance between the idealism and excitement of science and its responsible application and use.

General Election

The following nominees for president-elect and membership on the Board of Directors are presented by the Committee on Nominations.

President-Elect

(One to be elected for a 3-year term—the second year as president, the third year as retiring president and chairman of the Board.)

Edward E. David, Jr.

Ruth M. Davis

Edward E. David, Jr.

Edward E. David, Jr., 51 (physics, electrical engineering), B.S., Georgia Institute of Technology, 1945; S.M. (1947) and Sc.D. (1950), Massachusetts Institute of Technology; honorary doctorates from six universities.

As executive vice president, Research and Development, for Gould Inc. of Chicago, David heads up an electrical, electronic, and industrial product development effort with an annual budget of \$35 million. He is also president of Gould Laboratories and a director of the company. Before going to Gould, he served as science adviser to the President and director of the Office of Science and Technology, Executive Office of the President (1970–72).

David joined the Bell Telephone Laboratories in 1950 and worked subsequently in underwater sound and communication acoustics. From 1963 until 1970 he specialized in computing science, doing research in advanced computing techniques with particular emphasis on "man-machine communication." He has been granted eight patents for inventions relating to underwater sound, sound localization, and speech processing.

From 1966 to 1970 he was also professor of electrical engineering at Stevens Institute of Technology.

He is the originator of "The Man-Made World," a new course concerning the principles behind technology that is being taught in about 1000 high schools. Developed to provide "technological literacy" for the general student, the course was the result of collaboration by teachers, professors, and engineers from industry. The book received the Operations Research Society of America 1971 Lancaster Prize.

The author of many technical articles on communication theory, speech hearing, speech recognition and processing, vocoders, and computing, David is co-author of two books, *Man's World of Sound and Waves and the Ear*, and co-editor of the book, *Human Communication, a Unified View*.

He is a member of the National Academy of Sciences, the National Academy of Engineering, the MIT Corporation, and a number of committees, boards, and councils. He is a fellow of the American Academy of Arts and Sciences, AAAS, Acoustical Society of America, and other societies. Awards received by David include Outstanding Young Engineer, Eta Kappa Nu, 1954; George W. McCarty Award, Georgia Institute of Technology, 1958; President's Award of Merit, American Society of Mechanical Engineers, 1971; and Harold Pender Award, Moore School, University of Pennsylvania, 1972. He was a member of the AAAS Board of Directors and Council, 1973–75, and Executive Committee, 1974.

Ruth M. Davis

Ruth M. Davis, 47 (computer science and mathematics), B.A., American University, 1950; M.A. (1952) and Ph.D. (1955), University of Maryland.

Davis has been director of the Institute for Computer Sciences and Technology of the Na-

tional Bureau of Standards since its establishment in 1972. She joined NBS in 1970 as director of the Center for Computer Sciences and Technology. She became adjunct professor, Moore School of Engineering, University of Pennsylvania, this year and has been visiting professor, University of Pittsburgh, since 1968.

She started work for the Department of the Navy on nuclear reactor design in 1953. In 1958 she established and became the first director of the Operations Research Division, David Taylor Model Basin, where she served as technical director of the Navy's shore-based Command and Control Systems activities, 1958–61. She was visiting lecturer and assistant professor in mathematics at American University and the University of Maryland, 1955–58.

From 1961 to 1967, Davis was staff assistant for intelligence and reconnaissance, Office of the Director of Defense Research and Engineering, Office of the Secretary of Defense. In 1967 she went to the National Library of Medicine as associate director for research and development. She was the first director of the Lister Hill National Center for Biomedical Communications, 1968–70. She was guest lecturer at Harvard University in 1973 and gave invited lectures at a number of universities in 1975.

Davis is a member of the National Academy of Engineering, the National Academy of Public Administration, and more than ten professional and honorary societies. She is chairman-elect, National Advisory Council, Electric Power Research Institute; chairman of the Urban Information Systems National Advisory Council; and U.S. representative to the Computer Utilization Group, Organization for Economic Cooperation and Development. She has served on or chaired a variety of committees, boards, panels, and councils, and has some 50 articles published in scientific and technical journals.

Awards received by Davis include the Rockefeller Public Service Award for Professional Accomplishment and Leadership, 1973; Department of Commerce Gold Medal, 1972; Purdue University Old Masters Award, 1974; and Federal Women of the Year, 1972. She has received medals from the University of Helsinki and Karolinska Institutet. In AAAS she is a member of the Board of Directors, Executive Committee, Council, Committee on New Directions, and the AAAS-American Bar Association National Conference on Science, Technology, and the Law. In 1975 she was chairman of the Section on Information, Computing, and Communication (T).

Members of the Board of Directors

(Two to be elected for 4-year terms.)

Theodore C. Byerly
Martin M. Cummings
Renée C. Fox
Roy D. Hudson

Theodore C. Byerly

Theodore C. Byerly, 74 (biology, agriculture, and the environment), A.B. (1923) and Ph.D. (1926), State University of Iowa.

Now retired from the U.S. Department of Agriculture, Byerly served for 40 years as research physiologist, research administrator, and (1969-1973) coordinator of environmental quality activities. In that position he participated in interagency committees on ecology, weather modification, pesticides, satellites' observation of earth resources, and back contamination from moon materials, and related international activities.

His past chairmanships include: Governing Board, American Institute of Biological Sciences, 1952; 10th World Poultry Conference, 1954; Division of Biology and Agriculture, National Research Council, 1962-65; Committee on Fulbright Fellowships, National Research Council, 1955-57. He was the U.S. Delegate to the UNESCO Conference on Rational Use of the Biosphere, 1968. As a committee member, he participated in the work of the Special Committee for IBP, 1964-68; U.S. National Committee for UNESCO, 1955-61; the U.S.-U.S.S.R. Joint Environmental Commission, 1972; the 16th FAO Regional Conference for Latin America, 1960. He served as technical advisor (agriculture) on the U.S. Delegation to the UN Conference on the Human Environment, 1972.

In AAAS, Byerly served on the Council, 1954-73, and on the Committees on Social Aspects of Science, 1957-58; Science in the Promotion of Human Welfare, 1959-65; Council Affairs, 1963-65; Environmental Alterations, 1969-74; Nominations, 1973-74. He was chairman of the Section on Agriculture (O), 1968.

Byerly's major research has been on nutrition of the chick embryo, feed efficiency of laying hens and mammalian livestock species. He is holder of the Borden Award, 1943 (poultry science); Merit Citation, 1958 (National Civil Service League); and the Distinguished Service Award (USDA), 1965.



Dr. Byerly's statement: *AAAS should advance science and serve society by facilitating communication and interaction among people in all scientific disciplines, professions, and vocations. Meetings provide forums and audiences, scientific and public. Science provides reports of new scientific findings, authoritative reviews and editorials. Officers and committees can provide sound, scientific information to decision makers.*

Martin M. Cummings

Martin M. Cummings, 55 (medicine), B.S., Bucknell University, 1941; M.D., Duke University School of Medicine, 1944; honorary doctorates from five universities.

Since 1964, Cummings has been director of the National Library of Medicine. His work in administration began in Atlanta, where he was director of the Tuberculosis Evaluation Laboratory, Communicable Disease Center, U.S. Public Health Service, 1947-49, and chief, Tuberculosis Research Laboratory, Veterans Administration Hospital, 1949-53. From 1953 to 1959 he was director of Research Services, Veterans Administration Central Office, Washington, D.C. He went to the National Institutes of Health in 1961 as chief, Office of International Research, and served as associate director for research grants in 1963.

Cummings was an associate professor at Emory University School of Medicine, 1948-53; special lecturer in microbiology, George Washington University School of Medicine, 1953-59; professor of microbiology and department chairman, University of Oklahoma School of Medicine, 1959-61.

He is a member of the National Academy of Sciences, the Institute of Medicine, and numerous professional societies in the United States and abroad. He is the author of 100 scientific and historical publications, co-author of a textbook in the field of tuberculosis, and recipient of the following awards: Veterans Administration Exceptional Service Medal, DHEW Superior Service Award, DHEW Distinguished Service Award, Duke University Distinguished Alumnus Award, Rockefeller Public Service Award, and Modern Medicine Distinguished Achievement Award. He was a member of the AAAS Publications Committee, 1973-74.

Dr. Cummings' statement: *The AAAS should strive to improve our understanding of nature and mankind through the advancement of science. We must generate new knowledge and disseminate it broadly and wisely. This goal can be sustained by a continued faith in science by scientists themselves and a better understanding of science by the public.*

Renée C. Fox

Renée C. Fox, 48 (sociology), B.A., Smith College, 1949; Ph.D., Radcliffe College, 1954; honorary degrees, Medical College of Pennsylvania and Smith College.

Fox is professor of sociology in the Departments of Sociology, Psychiatry, and Medicine at the University of Pennsylvania and



chairs the Department of Sociology. She was a member of the Bureau of Applied Social Research, Columbia University, from 1953 to 1958, and of the sociology faculty of Barnard College from 1955 to 1967. She has also taught at Harvard University, 1967-69; the Université Officielle in Lubumbashi, Zaire; and at Sir George Williams University in Montreal.

Her interests in the sociology of medicine, medical research, and medical education have involved her in firsthand studies in Europe and in Central Africa, as well as in the United States. She has published numerous articles and is the author or co-author of three books: *Experiment Perilous*, *The Emerging Physician*, and *The Courage to Fail*. She is associate editor of *Social Science and Medicine* and serves on the editorial committee of the *Annual Review of Sociology* and the editorial advisory boards of the *Encyclopedia of Bioethics* and the *Journal of Medicine and Philosophy*.

In 1962, Fox was awarded a John Simon Guggenheim Memorial Fellowship. She received an E. Harris Harbison Gifted Teaching Award from the Danforth Foundation in 1970, was appointed a Phi Beta Kappa Visiting Scholar for 1973-75, and directed a National Endowment for the Humanities Seminar for Medical Practitioners in 1975.

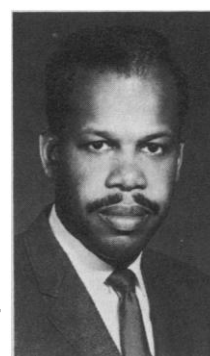
Fox is a fellow of the American Academy of Arts and Sciences and a member of the Institute of Medicine. She holds appointments on several boards and advisory committees, and is a member of the executive committee, Assembly of Behavioral and Social Sciences, National Research Council. She served on the Committee of Judges for the 1971 AAAS Socio-Psychological Prize and on the AAAS Committee on Science in the Promotion of Human Welfare, 1972-74.

Dr. Fox's statement: *The AAAS represents high standards of scientific excellence and creativity, broad interdisciplinary and international scope, commitment to the effective communication of scientific knowledge and insights to the public as well as to scientists, active involvement in the formation of science policy, and ardent dedication to the advancement of human welfare. The unique blend that it has progressively achieved should not only be maintained, but also constantly renewed, so that the AAAS will continue to express its underlying principles in a contemporaneously applicable way.*

Roy D. Hudson

Roy D. Hudson, 45 (neuropharmacology), B.S., Livingstone College, 1955; M.S. (1957) and Ph.D. (1962), University of Michigan; honorary degrees from Brown University, Lehigh University, and Princeton University.

Hudson has been president of Hampton Institute since 1970.



He was a Danforth fellow from 1955 to 1961, taught and did research in the University of Michigan Medical School from 1961-66, and was assistant professor and associate professor at Brown University Medical School and associate dean of the Graduate School from 1966-70. He also served for 2 years as visiting professor at the University of Virginia Medical School.

His primary research interest is directed toward the understanding of the neural mechanism of "normal" central nervous system function. His research has been supported by grants from the National Institute of Mental Health and the American Medical Association. His publications have appeared in several pharmacological journals.

A member of many professional societies, Hudson serves on the boards of Brown University, Southern Regional Education Board, Institute Policy Commission, National Association for Equal Opportunity in Higher Education, American Council on Education (Commission on Federal Relations), Peninsula United Community Services, University Center in Virginia, and Parke Davis & Company. He is a member of the Danforth Foundation Advisory Council, Advisory Committee to the Director of the National Institutes of Health, and Advisory Committee to the Eastern Virginia Medical School. In addition, he is a commissioner for the Norfolk Area Medical Center Authority for Eastern Virginia Medical School.

Committee on Nominations

By amendment of the bylaws, the AAAS Council on 21 February 1976 increased the number of elected members of the Committee on Nominations from six to eight; the terms of four are to expire annually. To bring the elected membership up to eight in 1977, five positions are to be filled in the 1976 election (only three of the present members will serve through 1977). The Committee on Council Affairs presents the following slate of nominees, of whom one is to be elected for a 1-year term and four are to be elected for regular, 2-year terms:

(One to be elected for a 1-year term.)

Lewis M. Branscomb
Ward H. Goodenough

(Four to be elected for 2-year terms.)

Richard I. Ford
Elburt F. Osborn
Maxine L. Rockoff
Margaret W. Rossiter
Dorothy M. Skinner
Eric Wolman
M. Gordon Wolman
Gail S. Young

Lewis M. Branscomb

Lewis M. Branscomb, 50 (physics), A.B., Duke University, 1945; M.S. (1947) and Ph.D. (1949), Harvard University; honorary doctorates from four universities.

In his present position as vice president and chief scientist of International Business Machines Corporation, Branscomb is responsible for guiding the corporation's scientific and technical programs to ensure that they meet long-term needs. Before going to IBM in 1972, he served for 3 years as director of the National Bureau of Standards. He joined the Bureau in 1951, was chief of the Atomic Physics Section, 1954-62; chief of the Atomic

Physics Division, 1960-62; chairman of the Joint Institute for Laboratory Astrophysics, University of Colorado, 1962-65 and 1968-70; and chief, Laboratory Astrophysics Division, 1962-69. He has taught at University College, London, the University of Maryland, the University of Colorado, and Harvard University, where he was a member of the Society of Fellows.

Branscomb is a member of the National Academy of Engineering, the Institute of Medicine, and the National Academy of Sciences. He is a fellow of the American Academy of Arts and Sciences and several professional societies. He has received the Rockefeller Public Service Award, the Samuel Wesley Stratton Award, the Gold Medal for Exceptional Service from the U.S. Department of Commerce, the Procter Prize from the Scientific Research Society of America, and the National Civil Service League Award.

He serves on the boards of the Rand Corporation, the Polytechnic Institute of New York, the Commonwealth Fund, and the Carnegie Institution of Washington. He was recently appointed to the National Science Foundation Advisory Group on Contributions of Technology to Economic Strength. He was a member of the AAAS Board of Directors from 1970 to 1973, and has served on the Council and the Executive Committee.

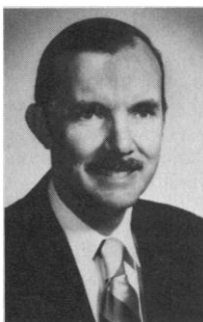
Ward H. Goodenough

Ward H. Goodenough, 57 (anthropology), B.A., Cornell University, 1940; Ph.D., Yale University, 1949.

Goodenough has been professor of anthropology at the University of Pennsylvania since 1962 and serves as department chairman. Before joining the faculty there in 1949, he taught at the University of Wisconsin for 2 years. He has been visiting professor or lecturer at Cornell University, Swarthmore College, Bryn Mawr College, University of Hawaii, University of Wisconsin at Milwaukee, and Yale University. He was a fellow at the Center for Advanced Study in the Behavioral Sciences from 1957 to 1958.

His anthropological studies have taken him to Truk, the Gilbert Islands, and New Guinea. He is the author or editor of *Property, Kin, and Community on Truk*, 1951; *Cooperation in Change*, 1963; *Explorations in Cultural Anthropology*, 1964; *Description and Comparison in Cultural Anthropology*, 1970; and *Culture, Language, and Society*, 1971. He was editor of the *American Anthropologist* from 1966 to 1970.

Goodenough is a member of the National Academy of Sciences, the American Philosophical Society, and the American Academy of Arts and Sciences, and has served on numerous boards and committees. He has served on the AAAS Board of Directors (1972-75), the Council, and the Committee on Council Affairs. He was vice president and



chairman of the Section on Anthropology in 1971 and is currently a member of the Editorial Board of *Science*.

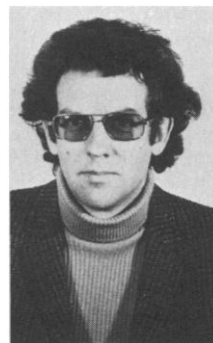
Richard I. Ford

Richard I. Ford, 34 (anthropology and ethnobotany), A.B., Oberlin College, 1963; M.A. (1963) and Ph.D. (1968), University of Michigan.

Ford is director of the Museum of Anthropology and associate professor of anthropology and botany at the University of Michigan, Ann Arbor. He taught at the University of Cincinnati from 1967 until 1969 when he joined the University of Michigan faculty. He received a Distinguished Service Award from the University in 1971.

He is president of the Council for Museum Anthropology and is a member of the Editorial Board for the Society for Economic Botany. He has served on the Executive Board of the Society for American Archaeology and has advised several universities and museums on Native American affairs, museum programs, and paleoethnobotanical research.

Ford served the AAAS as a member of the Section Committee of the Section on Anthropology from 1969-75 and of the Council from 1969-73.



Elburt F. Osborn

Elburt F. Osborn, 64 (geology), B.A., DePauw University, 1932; M.S., Northwestern University, 1934; Ph.D., California Institute of Technology, 1958; honorary doctorates from four universities.

Osborn is distinguished professor at the Geophysical Laboratory of the Carnegie Institution of Washington, a position he has held since 1973. He first joined the Geophysical Laboratory staff in 1938; went to the National Defense Research Committee, Office of Scientific Research and Development, in 1942; was with the Eastman Kodak Company in 1945-46; and then began a long career at Pennsylvania State University as professor of geochemistry and chairman of the Department of Earth Sciences, 1946-53, dean, College of Mineral Industries, 1953-59, and vice president for research, 1959-70. He served as director of the Bureau of Mines, U.S. Department of the Interior, 1970-73.

His research has been largely in laboratory investigations of high temperature reactions as applied to the origin of igneous rocks, to iron and steel making, and to ceramic processes. He has led efforts to stimulate national interest in mineral engineering fields and has supported efforts to expand education and training in mineral-resource disciplines. He currently serves as chairman of the Mineral Resources Board, National Research Council; chairman of the U.S. National Committee on Geology; and member of the Materials Advi-



sory Committee to the Office of Technology Assessment.

Osborn is a member of the National Academy of Engineering and recipient of the Roebling Medal of the Mineralogical Society of America, the John Jeppson Award and the Bleining Medal of the American Ceramic Society, and the Hal Williams Hardinge Award of the Society of Mining Engineers. He has served as president of the Mineralogical Society of America, the American Ceramic Society, the Geochemical Society, and the Society of Economic Geologists. He was a member of the AAAS Council from 1960-62 and 1964-67.

Maxine L. Rockoff

Maxine L. Rockoff, 37 (applied mathematics, health care technology, and health services research), B.S., George Washington University, 1958; M.A. (1960) and Ph.D. (1964), University of Pennsylvania.

Rockoff is health scientist administrator with the National Center for Health Services Research, Rockville, Md. Prior to joining the Public Health Service in 1971, she held various positions spanning the disciplines of applied mathematics and biomedicine at the University of Pennsylvania (1958-61), National Bureau of Standards (1961-64), University of Maryland (1964-65), Yale University (1965-68), and Washington University (1968-71).

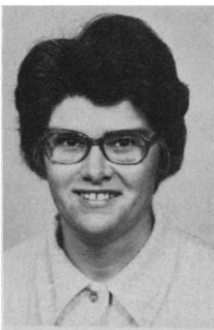
Her professional interests, centering around the development of quantitative tools for planning and evaluating technology and other innovations to improve health care delivery systems, evolved from an earlier interest in the application of computer-based mathematical modeling to the study of physiological systems.

She is a member of the Council and Board of Trustees of the Society for Industrial and Applied Mathematics (SIAM) and since 1973 has been SIAM's representative on the Section Committees of the AAAS Sections on Mathematics (A), Industrial Science (P), Information, Computing, and Communication (T), and Statistics (U). She organized a symposium on "The Use of Quantitative Information and Modeling in Public Policy Decision Making" for the AAAS annual meeting in 1975 and served as a member of the Ad Hoc Selection Committee for the 1976-77 AAAS Congressional Science Fellow Awards.

Margaret W. Rossiter

Margaret W. Rossiter, 31 (history of science), A.B., Radcliffe College, 1966; M.S., University of Wisconsin, 1967; M.Phil. (1969) and Ph.D. (1971), Yale University.

Rossiter has been a lecturer in the Department of History at the University of California, Berkeley, since



1975. She joined the faculty there in 1973 as acting assistant professor. From 1971 to 1972 she was a National Science Foundation fellow at Brown University and, from 1972 to 1973, a fellow at the Charles Warren Center for Studies in American History, Harvard University.

She has been a member of the Council of the History of Science Society since 1974 and a member-at-large of the Section Committee of the AAAS Section on History and Philosophy of Science since 1975. Her interests are in 19th- and 20th-century science.

Dorothy M. Skinner

Dorothy M. Skinner, 46 (biology), B.S., Tufts University, 1952; Ph.D., Harvard University, 1958.

Skinner is a staff member in the Biology Division, Oak Ridge National Laboratories, and professor of biology at the University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences. She joined the Division in 1966 and was appointed to her present positions in 1968. Since 1970, she has headed a group on growth and regeneration in the Biology Division. Her research in molecular biology is concerned with the characterization of the eucaryotic genome with special emphasis on satellite DNA's and, in developmental biology, with the interactions of molting and regeneration in Crustacea.

From 1952 to 1954, she was assistant director of admissions at Jackson College. Upon receipt of her doctorate, she was awarded a U.S. Public Health Service postdoctoral fellowship to work at Yale and Brandeis Universities. She also took postdoctoral training under an American Cancer Society fellowship at Yale University. She spent 4 years as assistant professor of physiology and biophysics at New York University Medical Center before moving to Oak Ridge as a special fellow of the Institute of Nuclear Studies in 1966. She has taught in the invertebrate zoology course at the Marine Biological Laboratory, Woods Hole, and is a member of the Corporation.

Skinner has served as a member of the Molecular Biology Study Section, National Institutes of Health, and of the Executive Council of the American Society of Cell Biology; as treasurer of the Society of General Physiologists; and as chairman or member of sectional nominating committees of the American Society of Zoologists and of the Society of Developmental Biology.

Eric Wolman

Eric Wolman, 44 (applied mathematics and systems engineering), A.B. (1953), A.M. (1954), and Ph.D. (1957), Harvard University.

In 1972, Wolman assumed his present position as head of the Network Engineering Department at Bell Telephone Laboratories, Holmdel, N.J. Since joining Bell Labs in 1957, he has worked principally on queuing theory and its applications to telecommunications traffic and to work-scheduling in multiprogrammed computers. He has also had responsibility for applications of coding theory



in data communications and for field evaluation of the performance of new telephone systems. He was appointed head of the Traffic Systems Analysis Department in 1966 and of the Traffic Research Department in 1968. In 1964 he was a visiting lecturer on applied mathematics at Harvard University.

Wolman has been a member of the Evaluation Panel for the Institute for Applied Technology, National Bureau of Standards, since 1974. He has served on the Committee on Fire Research, NAS-NRC, 1966-70; on the Evaluation Panel for Fire Programs, National Bureau of Standards, 1971-75; and on the Council of the Society for Industrial and Applied Mathematics, 1969-74. He was a member of the Editorial Board of *SIAM Journal on Applied Mathematics*, 1965-72, and currently represents SIAM on the Section Committee of the AAAS Section on Engineering.

M. Gordon Wolman

M. Gordon Wolman, 51 (geology), A.B., Johns Hopkins University, 1949; M.A. (1951) and Ph.D. (1953), Harvard University.

Since 1968, Wolman has been professor of geography at Johns Hopkins University and, since 1970, chairman of the Department of Geography and Environmental Engineering. He has been on the U.S. Geological Survey staff since 1951 (on a part-time basis after going to Johns Hopkins in 1958). He was a visiting lecturer at the University of Texas in 1965, University of Wisconsin in 1968, and University of London in 1973.

Wolman has been a member or chairman of numerous boards, committees, and panels, and has served as president of the Commission on Land Erosion, International Association of Scientific Hydrology, since 1968. He was president of the American Geophysical Union Section of Hydrology from 1970-72. He is a current member of the Scientific Advisory Council, Maryland Academy of Sciences; Maryland Conservation Education Commission; NRC Committee on Geological Sciences; NAS-NAE Committee on International Environmental Programs and Science and Engineering Committee Advisory to NOAA; NAS Committee on Mineral Resources and the Environment; and NRC Environmental Studies Board. He is chairman of the NAS National Committee on Water Quality Policy and of the Maryland Committee on Water Quality Review Criteria.

The author of numerous articles, Wolman has served on the Editorial Advisory Board of the *Journal of Hydrology* and *Geografiska Annaler*. He was a member of the Editorial Board of *Science* from 1973-74. In 1972, Wolman received the Meritorious Contribution Award of the Association of American Geographers.



Gail S. Young

Gail S. Young, 60 (mathematics), B.A. (1939) and Ph.D. (1942), University of Texas.

Young is professor of mathematics at the University of Rochester, a position he has held since 1970. From 1970–75, he was also department chairman. He began his teaching career at Purdue University in 1942, went to the University of Michigan in 1947, and then to Tulane University in 1959 as professor in the Department of Mathematics, which he chaired from 1963–68.

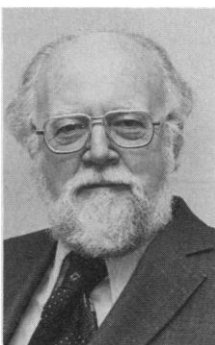
He is the co-author of *Topology*, 1961, and author of some 40 papers in topology, complex analysis, vector-valued functions, and mathematical education. He has been a member of the Survey Committee of the Conference Board of the Mathematical Sciences since 1964, and was the general editor and part author of *Report of the CBMS Survey Committee* published in three volumes, 1967, 1969, and 1970. He was director of the International Symposium on Quasi-Conformal Mappings in 1965.

In addition to serving on various committees of the Mathematical Association of America, he was president of MAA from 1969–71. He was chairman of the NAS-NRC Committee on Forms and Levels of Support, 1968–70, a member of the Committee on Applications of Mathematics, 1964–67, and has been chairman of the U.S. Commission on Mathematical Instruction since 1975. Young is consultant to the National Institute of Education and is a current member of the Committee on the Undergraduate Program in Mathematics and of the American Mathematical Society's Committee on Women in Mathematics. In AAAS he served on the Council in 1967–69 and 1973 and is now a member of the Section A Electorate Nominating Committee and of the Section Committee for the Section on Mathematics.

Electorate Elections

The AAAS is apportioned into 21 electorates, corresponding to the 21 sections. Each member may designate one section as his electorate, may vote in that electorate only, and may be nominated only by the nominating committee of that electorate for any position filled by vote of an electorate: Council delegate, section chairman-elect, member-at-large of the section committee, and member of the electorate nominating committee.

Each year seven of the 21 electorates elect Council delegates for 3-year terms. In the 1976 elections, the electorates of Sections A through H will do so. The number of delegates per electorate varies, depending on the number of AAAS members enrolled in the electorate. The membership of Electorates J (Psychology), M (Engineering), and N (Medical Sciences) has increased to the point that they are now entitled to elect additional Council delegates. Candidates who are running in the 1976 elections for these new positions will serve initial terms of 2 years, so that their terms will expire simultaneously with the



terms of the other delegates from Electorates J, M, and N.

Slates for all positions to be filled by electorates in the September elections follow.

Section A—Mathematics

Council Delegate (one to be elected for a 3-year term).

Kenneth M. Hoffman
Daniel Zelinsky

Kenneth M. Hoffman (mathematics), 1930; A.B., Occidental College, 1952; M.A., University of California, Los Angeles, 1954, Ph.D., 1956; instructor, Massachusetts Institute of Technology, 1956–57, C. L. E. Moore instructor, 1957–59, assistant to associate professor, 1959–64, professor, 1964–, department head, 1971–; fellow, Alfred P. Sloan Foundation, 1964–66; chairman, Commission on MIT Education, 1969–71; cochairman, MIT/Wellesley Exchange Program, 1974–; Council and Nominations Committee, American Mathematical Society; function algebras; the theory of analytic functions.

Daniel Zelinsky (mathematics), 1922; S.B., University of Chicago, 1939, S.M., 1941, Ph.D., 1946; instructor, University of Chicago, 1943–44; assistant, Applied Mathematics Group, Columbia University, 1944–45; instructor, University of Chicago, 1946–47; National Research Council fellow, Institute for Advanced Study, 1947–49; assistant to associate professor, Northwestern University, 1949–60, professor, 1960–; visiting professor, Kyoto University, 1955–56, University of California, Berkeley, 1960, Florida State University, 1962, Hebrew University, 1970–71; Guggenheim fellow, Institute for Advanced Study, 1956–57; editor, *Transactions*, American Mathematical Society, 1961–67, Committee on Communications, 1965–70, Executive Committee of Council, 1966–67; Division of Mathematics, National Research Council, 1962–64, Executive Committee, 1964; ring theory, especially cohomology theory; Galois theory; algebras over rings.

Section Chairman-Elect (one to be elected for a 2-year term).

Ralph P. Boas, Jr.
Mark Kac

Ralph P. Boas, Jr. (mathematics), 1912; A.B., Harvard University, 1933, Ph.D., 1937; National Research fellow, 1937–39; instructor, Duke University, 1939–42; assistant instructor, U.S. Navy Pre-Flight School, 1942–43; visiting lecturer, Harvard University, 1943–45; research associate, Brown University, 1945–50; professor, Northwestern University, 1950–; Guggenheim fellow, 1951–52; executive editor, *Mathematical Reviews*, 1945–50; vice president, American Mathematical Society, 1959–60; Council, AAAS, 1962–63, 1969–70, chairman, Section on Mathematics, 1970, Electorate Nominating Committee, Section A, 1974–76, chairman, 1975; president, Mathematical Association of America, 1972–74; complex analysis; Fourier analysis.

Mark Kac (mathematics), 1914; Ph.D., John Casimir University, Lwow, Poland, 1937; instructor to assistant professor, Cornell University, 1939–47, professor, 1947–61, Andrew D. White professor-at-large, 1965–; professor, Rockefeller University, 1961–; Guggenheim fellow, 1946–47; member, Institute for Advanced Study, 1951–52; Lorentz

visiting professor, University of Leiden, 1963; Chauvenet Prize, Mathematical Association of America, 1950, 1968; American Academy of Arts and Sciences, 1959; National Academy of Sciences, 1965; Council, American Mathematical Society, 1955–58, editor, *Transactions*, 1955–58; Committee on the Public Understanding of Science, AAAS, 1964, chairman, Section on Mathematics, 1969; chairman, Division of Mathematical Sciences, NAS-NRC, 1966–67; theory of probability.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Calvin C. Moore
Julia Robinson

Calvin C. Moore (mathematics), 1936; A.B., Harvard University, 1958, M.A., 1959, Ph.D., 1960; instructor, University of Chicago, 1960–61; assistant to associate professor, University of California, Berkeley, 1961–66, professor, 1966–, dean, Physical Sciences, 1971–; Sloan Foundation fellow, 1965–67; fellow, American Academy of Arts and Sciences, 1973; member-at-large, Council, American Mathematical Society, 1970–73, Executive Committee, Council, 1970–72, Board of Trustees, 1971–, Committee on Employment and Educational Policy, 1973–75; Executive Committee, Mathematics Division, National Research Council, 1972–74; unitary group representations and structure of topological groups; operator algebras; ergodic theory.

Julia Robinson (mathematics), 1919; Ph.D., University of California, Berkeley; lecturer, University of California, Berkeley (occasional appointments), research associate (currently); Council, Association for Symbolic Logic; metamathematics and number theory.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Donald A. Darling
Robion C. Kirby
Murray S. Klamkin
Joseph Landin

Donald A. Darling (mathematics), 1915; A.B., University of California, Los Angeles, 1939; Ph.D., California Institute of Technology, 1947; research associate, Cornell University, 1947–48; assistant professor, Rutgers University, 1948–49; assistant to associate professor, University of Michigan, 1949–59, professor, 1959–68; professor, University of California, Irvine, 1969–, department chairman, 1973–; visiting professor, Columbia University, 1951–52, University of Chicago, 1955–56, University of California, Berkeley, 1968–69; Guggenheim fellow, 1958; associate editor, *Annals of Mathematical Statistics*, 1958–61; Council, American Mathematical Society, 1962–66; probability; mathematical statistics.

Robion C. Kirby (mathematics, topology), 1938; B.S., University of Chicago, 1959, M.S., 1960, Ph.D., 1965; assistant professor, University of California, Los Angeles, 1965–69, professor, 1969–71; professor, University of California, Berkeley, 1971–; visiting professor, University of Wisconsin, 1967, Institute for Advanced Study, 1968 and 1969, Cambridge University, 1970, Harvard University, 1971, Institut des Hautes Etudes Scientifiques, Paris, 1974 and 1976; Veblen Prize in geometry, 1971; Guggenheim fellow, 1974; NSF Advisory Panel in Mathematics, 1972–75; member-at-large, Council, American

Mathematical Society, 1974-76, Executive Committee, 1976-77; topology of manifolds.

Murray S. Klamkin (mathematics), 1921; B.Ch.E., Cooper Union School of Engineering, 1942; M.S., Polytechnic Institute of Brooklyn, 1947; instructor to associate professor, Polytechnic Institute of Brooklyn, 1948-56; principal staff scientist, AVCO Research and Advanced Development Division, 1956-62; professor, State University of New York, Buffalo, 1962-64; visiting professor, University of Minnesota, 1964-65; principal research scientist, Ford Motor Company, 1965-75; professor, University of Waterloo, 1974-; problem editor, *SIAM Review*, 1959-; Advisory Panel, Applied Mathematics Division, National Bureau of Standards, 1969-74, chairman, 1971-74; Committee for Corporate Members, Mathematical Association of America, 1969-74, Board of Governors, 1971-74; U.S. Olympiad Committee, 1972-; Council, Society for Industrial and Applied Mathematics, 1973-75; Canadian Olympiad Committee, 1974-; heat transfer; convex sets and inequalities; mathematical modelling; analysis.

Joseph Landin (mathematics), 1913; B.S., Brooklyn College, 1937; M.S., New York University, 1941; Ph.D., University of Notre Dame, 1946; instructor, University of Notre Dame, 1943-46; instructor to associate professor, University of Illinois, Champaign-Urbana, 1946-59, professor, 1959-64; professor and department head, University of Illinois at Chicago Circle, 1964-75; professor and department head, Ohio State University, 1975-; Committee on Institutes, Mathematical Association of America, 1965-68, Committee to Facilitate Employer-Employee Contacts in Mathematics, 1971-72; Editorial Panel, New Mathematical Library, School Mathematics Study Group, 1966-69; algebra.

Section B-Physics

Council Delegates (three to be elected for 3-year terms).

Fay Ajzenberg-Selove
Raymond Bowers
Glennys R. Farrar
Melba Phillips
Theodore B. Taylor
Daniel J. Zaffarano

Fay Ajzenberg-Selove (nuclear physics), 1926; B.S., University of Michigan, 1946; M.S., University of Wisconsin, 1949, Ph.D., 1952; lecturer, Smith College, 1952-53; assistant to associate professor, Boston University, 1953-57; lecturer, University of Pennsylvania, 1957; associate professor to professor, Haverford College, 1957-70, acting chairman of department, 1960-61, 1967-69; research professor, University of Pennsylvania, 1970-73, professor, 1973-; Guggenheim fellow, Lawrence Radiation Laboratory, University of California, 1965-66; visiting staff member, Los Alamos Scientific Laboratory, 1971-; Advisory Board, "Nuclear Data Sheets," 1971-; Commission on Nuclear Physics, International Union of Pure and Applied Physics, 1972-78, U.S. National Committee for IUPAP, 1972-78; Council, AAAS, 1974-76; Panel on Public Affairs, American Physical Society, 1975-77; Ad Hoc Committee, Advisory Board to the Office of Physical Sciences, National Research Council, 1975-; nuclear spectroscopy; nuclear structure physics.

Raymond Bowers (physics, science and technology policy), 1927; B.Sc., University College, London, 1948; Ph.D., Oxford Uni-

versity, 1951; research fellow, University of Chicago, 1951-53; research physicist, Westinghouse Laboratories, 1953-60; professor, Cornell University, 1960-, director of Science, Technology and Society Program, 1973-; Office of Science and Technology, Executive Office of the President, 1966-67; visiting fellow, Clare College, Cambridge University, 1971-72; fellow, American Academy of Arts and Sciences; Committee on Public Engineering Policy, National Academy of Engineering; past chairman, Solid State Division, American Physical Society; chairman, Committee on Science and Public Policy, AAAS, 1973-75; solid state physics; science and technology policy, especially in the area of telecommunication systems.

Glennys R. Farrar (physics), 1946; B.A., University of California, Berkeley, 1967; Ph.D., Princeton University, 1970; member, Institute for Advanced Study, 1971-73; senior research fellow to assistant professor of theoretical physics, California Institute of Technology, 1973-; Alfred P. Sloan Foundation fellow; Executive Committee, Division of Particles and Fields, American Physical Society; structure and interactions of elementary particles.

Melba Phillips (physics), 1907; A.B., Oakland City College, 1926; M.A., Battle Creek College, 1928; Ph.D., University of California, Berkeley, 1933; high school teacher, 1926-27; instructor, Battle Creek College, 1928-30, University of California, Berkeley, 1934-35, Connecticut College, 1937-38, Brooklyn College, 1938-41; lecturer, University of Minnesota, 1941-44; assistant professor, Brooklyn College, 1944-52; associate director, Academic Year Institute, Washington University, 1957-62; professor, University of Chicago, 1962-72, professor emeritus, 1972-; visiting professor, State University of New York, Stony Brook, 1972-75; acting executive officer, American Association of Physics Teachers, 1975-; Oersted Medal, American Association of Physics Teachers, 1973, Executive Board, 1962-65, president, 1966-67; Commission on College Physics, 1962-68; Governing Board, American Institute of Physics, 1965-68, 1975-77; theory of complex spectra; theory of light nuclei; physics education.

Theodore B. Taylor (applied physics), 1925; B.S., California Institute of Technology, 1945; Ph.D., Cornell University, 1954; research assistant, Lawrence Radiation Laboratory, University of California, 1946-49; staff member, Los Alamos Scientific Laboratory, 1949-56; senior research advisor, General Atomic Division, General Dynamics Corporation, 1956-64; deputy director (scientific), Defense Atomic Support Agency, 1964-66; chairman of the Board, International Research and Technology Corporation, 1967-; visiting lecturer, Princeton University, 1976-; Ernest O. Lawrence Memorial Award, Atomic Energy Commission, 1965; Secretary of Defense Medal of Meritorious Civilian Service, 1966; Editorial Board, *Annual Reviews of Nuclear Science*, 1967-72; chairman, Civil Defense Systems Subcommittee, Civil Defense Committee, National Academy of Sciences, 1968-72; Panel on Materials Conservation through Technology, NAS Committee on Mineral Resources and the Environment, 1973-74; Working Group on Reactor Safety, American Physical Society, 1974-75; arms control, especially safeguards against diversion of nuclear materials for destructive purposes; nuclear power development; controlled environment agriculture.

Daniel J. Zaffarano (physics), 1917; B.S., Case Institute of Technology, 1939; M.S., Indiana University, 1948, Ph.D., 1949; Research and Development Laboratories, National Carbon Company, 1939-45; contract administrator, Johns Hopkins Applied Physics Laboratory, 1945-46; associate professor, Iowa State University, 1949-57; scientific liaison officer, Office of Naval Research, London, 1957-58; professor, Iowa State University, 1958-61, department chairman and division chief, Ames Laboratory, 1961-71, vice president for research and dean, Graduate College, 1971-; Distinguished Professor Award, Iowa State University, 1967; visiting scientist, American Institute of Physics, 1965-; chairman, NAS Management and Costs Subpanel of Nuclear Physics Survey, 1969-70; Board of Trustees, Argonne Universities Association, 1970-75; chairman, Graduate Deans Council, Mid-America State Universities Association, 1974-; chairman, Executive Committee, Midwestern Association of Graduate Schools, 1975-76; Executive Committee, Council of Graduate Schools in the United States, 1976-; nuclear physics; photonuclear reactions; accelerators.

Section Chairman-Elect (one to be elected for a 2-year term).

D. Allan Bromley
Robert S. Shankland

D. Allan Bromley (physics), 1926; B.Sc., Queen's University, 1948, M.Sc., 1950; Ph.D., University of Rochester, 1952; instructor to assistant professor, University of Rochester, 1952-55; senior research officer, Atomic Energy of Canada, Ltd., 1955-60, section head, 1958-60; associate professor and associate director, Heavy Ion Laboratory, Yale University, 1960-61, professor and director, A. W. Wright Nuclear Structure Laboratory, 1961-, department chairman, 1970-; Governor General of Canada Medal, 1948; fellow, American Academy of Arts and Sciences; chairman, NAS-NRC Committee on Nuclear Science, 1967-74, NAS-NRC Physics Survey Committee, 1969-72, U.S. National Committee for the International Union of Pure and Applied Physics, 1973-, and NRC Office of Physical Sciences, 1975-; vice president, IUPAP, 1975-; nuclear science; science policy.

Robert S. Shankland (physics), 1908; B.S., Case Institute of Technology, 1929, M.S., 1933; Ph.D., University of Chicago, 1935; physicist, National Bureau of Standards, 1929-30; instructor to associate professor, Ambrose Swasey professor, 1941-, department head, 1939-58; Presidential Certificate of Merit, 1948; chairman, Hydrophone Advisory Committee, U.S. Navy, 1942-44; director, Underwater Sound Reference Laboratories, Office of Scientific Research and Development, 1942-46; Acoustical Panel, Research and Development Board, 1945-48; Board of Directors, Association of Midwestern Universities, 1958-61, president, 1960-61; member-at-large, Section Committee, AAAS Section on Physics, 1961-64; Executive Council, American Association of Physics Teachers, 1963-66; Governing Board, American Institute of Physics, 1966-69; acoustics and architectural acoustics; underwater sound; atomic physics and nuclear energy.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Esther M. Conwell
Edward C. Creutz

Esther M. Conwell (physics), 1922; B.A., Brooklyn College, 1942; M.S., University of Rochester, 1945; Ph.D., University of Chicago, 1948; instructor, Brooklyn College, 1945–51; technical staff, Bell Telephone Laboratories, 1951–52; engineering specialist, GTE Laboratories, 1952–63; manager, Physics Department, 1963–72; principal scientist, Xerox Webster Research Center, 1972–; visiting professor, University of Paris, 1962–63, Massachusetts Institute of Technology, 1972; Annual Award, Society of Women Engineers, 1960; Committee on Women in Physics, American Physical Society, 1971–75, chairman, 1973, chairman, Committee on Professional Concerns, 1975–76; solid state physics.

Edward C. Creutz (physics), 1913; B.S., University of Wisconsin, 1936, Ph.D., 1939; instructor, Princeton University, 1939–42; physicist, University of Chicago, 1942–44, Manhattan Project, Los Alamos, 1944–46; associate professor, Carnegie Institute of Technology, 1946–49, professor, department head, and director, Nuclear Research Center, 1949–55; director of research, General Atomic Division, General Dynamics Corporation, 1955–59, vice president, research and development, 1959–67; vice president, research and development, Gulf General Atomic, Inc., 1967–70; assistant director, Directorate for Mathematical and Physical Sciences and Engineering, National Science Foundation, 1970–; Research Advisory Committee on Electrophysics, National Aeronautics and Space Administration, 1964–; formerly, director-at-large, Board of Governors, American Institute of Physics; member, National Academy of Sciences; ERDA Committee of Senior Reviewers; ERDA Fusion Power Coordinating Committee; member-at-large, Section Committee, AAAS Section on Physics, 1972–76, Council, 1972–73, Committee on Industry, Technology, and Society, 1972–74, Committee on Council Affairs, 1973–75; proton-proton and proton-lithium scattering; artificial radioactivity; metallurgy of uranium and beryllium.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Herbert P. Broida
Nina Byers
Janet B. Guernsey
Jose V. Martinez

Herbert P. Broida (physics, molecular spectroscopy), 1920; B.A., Colorado University, 1944; M.A., Harvard University, 1945, Ph.D., 1949; instructor, Wesleyan University, 1944–45; teaching fellow, Harvard University, 1945–59; physicist, National Bureau of Standards, 1949–56, section chief, 1956–59, senior research fellow, 1959–63; research associate, Georgetown University School of Medicine, 1957–63; professor, University of California, Santa Barbara, 1963–, director, Quantum Institute, 1973–; Guggenheim fellow, 1952–53; NSF fellow, 1959–60; lecturer, Colorado University, 1969–70, visiting fellow, JILA, 1969–70, LASP, 1970–; Junior Chamber of Commerce Arthur S. Flemming Award, 1956; U.S. Department of Commerce Gold Medal, 1960; Certificate of Commendation for Superior Performance, NBS, 1968; planetary atmospheres and air pollution; laser physics; high temperature measurements; chemical kinetics.

Nina Byers (physics), 1930; B.A., University of California, Berkeley, 1950; M.S., University of Chicago, 1953, Ph.D., 1956; research fellow, University of Birmingham, Bir-

mingham, England, 1956–58; research associate to assistant professor, Stanford University, 1958–61; assistant professor to associate professor, University of California, Los Angeles, 1961–67, professor, 1967–; Guggenheim fellow, 1964–65; member, Institute for Advanced Study, 1964–65; fellow, Somerville College, and faculty lecturer, University of Oxford, 1967–68; Janet Watson visiting fellow, Somerville College, 1968–73; senior visiting scientist, University of Oxford, 1972–74; theoretical physics, with particular emphasis on particle physics.

Janet B. Guernsey (physics), 1913; B.A., Wellesley College, 1935; A.M., Radcliffe College, 1948; Ph.D., Massachusetts Institute of Technology, 1955; instructor, Wellesley College, 1943–49, assistant to associate professor, 1949–61, professor, 1961–, department chairman, 1967–, Louise S. McDowell professor, 1970–; secretary-treasurer, New England Section, American Association of Physics Teachers, 1957–61, chairman, 1966–67; College Entrance Examination Board, 1957–62; NSF Panels on Summer Institutes, 1959, Panel on In-Service Institutes, 1964; president, AAPT, 1975–76; Physics Visiting Committee, MIT, 1975–78; intermediate energy neutron physics.

Jose V. Martinez (physics), 1932; B.S., Northern Arizona University, 1954; M.S., Washington State University, 1957; Ph.D., Oregon State University, 1961; research associate, Cornell University, 1961–63; scientist, Xerox Corporation, 1963–65; professor and department chairman, St. John Fisher College, 1965–74; scientist, Eastman Kodak Company, 1971–72; program manager for atomic physics, U.S. Energy Research and Development Administration, 1974–; Committee on Minorities, American Physical Society, 1971–76, chairman, 1973–74; Panel on Scientists with Spanish Surnames, AAAS, 1973–; atomic physics in energy technologies; optical holography; chemical physics; minority participation in science and engineering.

Section C—Chemistry

Council Delegates (five to be elected for 3-year terms).

Sharon K. Brauman
Alsoph H. Corwin
Robert P. DeSieno
Alphonse F. Forziati
H. S. Gutowsky
William L. Jolly
Anita H. Lewin
Milton D. Scheer
Leo Schubert
Jean'ne M. Shreeve

Sharon K. Brauman (polymer and physical organic chemistry), 1939; B.A., Mount Holyoke College, 1961; Ph.D., University of California, Berkeley, 1965; associate manager, polymer chemistry, Stanford Research Institute, 1965–; NIH fellow, 1961–65; visiting lecturer, Stanford University, 1974–; Advisory Committee, Vocational Internship Education for Women, Foothill-DeAnza Community College District/NASA, 1975–, Vocational Education Advisory Committee, 1976; fire retardance in polymers; polymer degradation and combustion; development and characterization of biocompatible polymers.

Alsoph H. Corwin (organic chemistry), 1908; A.B., Marietta College, 1928; Ph.D., Harvard University, 1932; associate, Johns Hopkins University, 1932–39, associate pro-

fessor to professor, 1939–73, emeritus professor, 1973–; Maryland Chemist Award, Maryland Section, American Chemical Society, 1963; Jonathan Forman Gold Medal, Society for Clinical Ecology, 1974; councilor, American Chemical Society, 1939–55, chairman, Maryland Section, 1950; director, Society for Clinical Ecology, 1973–; Council, AAAS, 1974–76; hemoglobin, chlorophyll, pyrrole, and porphyrin pigments; microchemical techniques; high precision weighing; chemistry of toxins and allergens.

Robert P. DeSieno (chemistry), 1933; B.S., Union College, 1955, M.S., 1962; Ph.D., University of California, Davis, 1966; research chemist, General Electric Company, 1957–62, Rohm and Haas Company, 1966–68; associate professor, Westminster College, 1968–; use of the computer in educational science laboratory; mobility of ions in non-aqueous solvents; history of science.

Alphonse F. Forziati (physical chemistry), 1911; B.A., Harvard University, 1932, M.A., 1934, Ph.D., 1939; instructor, Harvard University and Radcliffe College, 1933–38; chief, Physical Constants of Hydrocarbons Laboratory, National Bureau of Standards, 1941–50, research associate and project leader on molecular fluorescence, 1950–62; supervisory chemist, Harry Diamond Laboratory, 1962–63; program manager, Advanced Research Projects Agency, Office of the Secretary of Defense, 1963–66; assistant director, Division of Research, Federal Water Pollution Control Administration, 1966–71; chief, Measurements and Instrumentation Branch, U.S. Environmental Protection Agency, 1971–73, technical program review specialist, OPM/ORD, 1973–74, executive secretary, Environmental Measurements Advisory Committee, Science Advisory Board, Office of the Administrator, 1974–; Alpha Chi Sigma Award for Outstanding Service to the Profession of Chemistry, 1973; Board of Managers, Washington Section, American Chemical Society, 1960–, president, American Chemical Society, 1966; Board of Managers, Washington Academy of Sciences, 1960–, president, 1970–71; president, Washington Section, International Association for Dental Research, 1962–63, Washington Professional Chapter, Alpha Chi Sigma, 1965–66; Council, AAAS, 1966–70; physical constants of hydrocarbons; microstructure of human teeth; fluorescence and phosphorescence phenomena.

H. S. Gutowsky (physical chemistry), 1919; A.B., Indiana University, 1940; M.S., University of California, 1946; Ph.D., Harvard University, 1949; instructor to associate professor, University of Illinois, 1948–55, professor, 1956–, head, Division of Physical Chemistry, 1956–62, head, Department of Chemistry and Chemical Engineering, 1967–70, director, School of Chemical Sciences, and head, Department of Chemistry, 1970–; Board of Trustees, Gordon Research Conferences, 1969–72, chairman, 1971–72; chairman, Physical Chemistry Division, American Chemical Society, 1966, Committee on Professional Training, 1969–, chairman, 1974–, Committee on Nominations and Elections, 1971–; NSF Advisory Committee on Planning, 1971–74; NAS Committee on Science and Public Policy, 1971–; Council, AAAS, 1971–72, Editorial Board, *Science*, 1972–, member-at-large, Section Committee, Section on Chemistry, 1975–78; State of Illinois Board of Natural Resources and Conservation, 1973–; studies of chemical systems and problems by means of magnetic resonance; nuclear relaxations and the dynamic structure of liquids and solids.

William L. Jolly (inorganic and physical chemistry), 1927; B.S., University of Illinois, 1948, M.S., 1949; Ph.D., University of California, Berkeley, 1952; group leader, Livermore Radiation Laboratory, 1952–55; assistant to associate professor, University of California, Berkeley, 1955–62, professor, 1962–; Guggenheim fellow, 1960; Editorial Boards, *Inorganic Syntheses*, 1959–, *Journal of Electron Spectroscopy and Related Phenomena*, 1972–75; inorganic synthesis and mechanisms; x-ray photoelectron spectroscopy.

Anita H. Lewin (chemistry), 1935; B.S., University of California, Los Angeles, 1959, Ph.D., 1963; research assistant professor, University of Pittsburgh, 1964–66; assistant professor, Polytechnic Institute of New York, 1966–70, associate professor, 1970–; visiting associate professor, University of Tel-Aviv, 1970, University of North Carolina, 1975; amides and dipeptides; copper in organic chemistry; synthesis.

Milton D. Scheer (physical chemistry), 1922; B.S., City College of New York, 1943; M.S., New York University, 1947, Ph.D., 1951; research assistant, New York University, 1946–50; physical chemist, U.S. Naval Air Rocket Test Station, 1950–52, U.S. Bureau of Mines, 1952–55, General Electric Company, 1955–58; physical chemist, National Bureau of Standards, 1958–68, chief, Photochemistry Section, 1968–70, chief, Physical Chemistry Division, 1970–; NBS liaison representative, Division of Chemistry and Chemical Technology, National Research Council, 1973–76; chemical kinetics; photochemistry; surface physics; low temperature chemistry; plasma chemistry.

Leo Schubert (chemistry), 1916; B.S., City College of New York, 1936; M.S., New York University, 1943; Ph.D., University of Maryland, 1954; chemist, National Bureau of Standards, 1942–51; professor and department chairman, American University, 1951–; guest worker, National Bureau of Standards, 1975–76; Outstanding Science Teacher Award, Washington Academy of Sciences, 1964; College Chemistry Teacher Award, Manufacturing Chemists Association, 1968; Service Award, Chemical Society of Washington, 1971, Community Service Award, 1972; Committee on Youth Science Activities, AAAS, 1964–66, Council, 1965–66, 1969–76, Editorial Advisory Board, *Science Books*, 1965–74, secretary, Section on Chemistry, 1969–77, AAAS-Newcomb Cleveland Prize Committee of Judges, 1973–75; president, Chemical Society of Washington, 1964, Washington Academy of Sciences, 1965, District of Columbia Institute of Chemists, 1975–78; Panel of Authorities on Chemical Science and Technology, American Chemical Society, 1969–, Committee on Program Review, 1974–77, Committee on Chemistry and Public Affairs, 1975–77; editor-in-chief, *Journal of College Science Teaching*, National Science Teachers Association, 1970–; Committee on Minorities in Science, National Research Council, 1975; analytical chemistry of trace elements of environmental food; total synthesis of food.

Jean'ne M. Shreeve (inorganic chemistry),

1933; B.A., University of Montana, 1953; M.S., University of Minnesota, 1956; Ph.D., University of Washington, 1961; assistant to associate professor, University of Idaho, 1961–67, professor, 1967–, department head, 1973–; NSF fellow, 1967–68; Alfred P. Sloan Foundation fellow, 1970–72; Outstanding Educator of America Award, 1972; Garvan Medal, American Chemical Society, 1972; Outstanding Achievement Award, University of Montana, 1975; Committee on Standards in Higher Education, American Association of University Women, 1965–67, 1969–73; president, Idaho Chapter, Sigma Xi, 1968–69, Phi Kappa Phi, 1970–73, Phi Beta Kappa, 1975–76; chairman, Fluorine Division, American Chemical Society, 1970, councilor, 1973–78, Women Chemists Committee, 1972–77, Committee on Committees, 1975–77, PRF Advisory Board, 1975–77; Editorial Advisory Boards, *Journal of Fluorine Chemistry*, 1970–, *Inorganic Syntheses*, 1976–; Air Force Office of Scientific Research Proposal Evaluation Panel, 1972–75; Petroleum Research Fund Advisory Board, 1975–77; synthesis of inorganic fluorine-containing compounds.

Section Chairman-Elect (one to be elected for a 2-year term).

William E. McEwen
John Ross

William E. McEwen (organic chemistry), 1922; A.B., Columbia University, 1944, M.A., 1945, Ph.D., 1947; assistant chemist, Columbia University, 1943–45; technical engineer, Union Carbide Corporation, 1945–46; assistant to associate professor, University of Kansas, 1947–57, professor, 1957–62; professor and department head, University of Massachusetts, 1962–; research collaborator, Brookhaven National Laboratory, 1962–, Venezuelan Research Institute, 1973–; Du Pont fellow, 1946–47; Board of Editors, *Journal of Organic Chemistry*, 1966–70; councilor, Connecticut Valley Section, American Chemical Society, 1967–, National Committee on Nominations and Elections, 1969–; NSF Chemistry Panel, 1967–70, chairman, 1969–70; Editorial Boards, *Phosphorus and the Heavier Group Va Elements and Organic Preparations and Procedures International*, 1971–; Medicinal Chemistry B Study Section, NIH, 1973–; organophosphorus, organosulfur, organoantimony, and organoarsenic compounds; nitrogen heterocyclic compounds; reaction mechanisms.

John Ross (physical chemistry), 1926; B.S., Queens College, 1948; Ph.D., Massachusetts Institute of Technology, 1951; research associate, Massachusetts Institute of Technology, 1950–52; research fellow, Yale University, 1952–53; assistant professor to professor, Brown University, 1953–66; professor and department chairman, Massachusetts Institute of Technology, 1966–71, Frederick G. Keyes professor of chemistry, 1971–, chairman, MIT faculty, 1975–77; Guggenheim fellow, 1959–60; Sloan research fellow, 1960–64; visiting professor, University of Amsterdam, 1966; associate editor, *Journal of Chemical Physics*, 1968–77; chairman, NRC Committee on Physical Chemistry, 1968–69; Executive Committee, Board of Governors, Weizmann Institute of Science, 1971–; chairman, Division of Physical Chemistry, American Chemical Society, 1971–72, Division of Chemical Physics, 1975–76; Chemistry Research Evaluation Committee, Air Force Office of Scientific Research, 1971–, Standing Committee on Re-

search of the Science and Technology Advisory Group, 1976–; NSF Chemistry Review Panel, 1974–; theoretical and experimental studies of chemical dynamics; chemical instabilities.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Henry Linschitz
Joel Selbin

Henry Linschitz (physical chemistry), 1919; B.S., College of the City of New York, 1940; M.A., Duke University, 1941, Ph.D., 1946; section leader, Los Alamos Scientific Laboratory, 1944–46; research fellow, University of Chicago, 1946–48; assistant to associate professor, Syracuse University, 1948–57; associate professor, Brandeis University, 1957–58, professor, 1959–; visiting scientist, Brookhaven National Laboratory, 1955–56; Fulbright visiting professor, Hebrew University, 1961; NIH fellow, 1967; Guggenheim fellow, 1971–72; Advisory Committee on Space Biology, NASA, 1962; Study Section on Biophysics and Biochemistry, NIH, 1963–64; NRC Committee on Photobiology, 1964–68; Editorial Board, *Molecular Photochemistry*, 1969–; Visiting Committee, Brookhaven National Laboratory, 1973–; councilor, Northeast Section, American Chemical Society, 1974–; chemical kinetics; photochemistry; mechanisms of photobiological processes.

Joel Selbin (chemistry), 1931; B.S., George Washington University, 1953; Ph.D., University of Illinois, 1957; assistant to associate professor, Louisiana State University, 1957–67, professor, 1967–; visiting lecturer, University of Rome, 1963–64, University of California, Berkeley, 1972; Petroleum Research Fund (ACS) International Faculty Award, 1963–64; Outstanding Educator of America Award, 1972, 1975; Louisiana State University Alumni Distinguished Faculty fellow, 1972–73; Charles E. Coates Memorial Award, 1973; secretary, Baton Rouge Chapter, American Chemical Society, 1961–62; preparation, physical chemical studies, and correlation with Theory of Complexes of early transition elements; bioinorganic and organometallic chemistry of molybdenum.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Harvey Alter
Patricia A. M. Figueras
Bruce McDuffie
Bruno J. Zwolinski

Harvey Alter (physical chemistry), 1932; B.S., Queens College, 1952; M.S., University of Cincinnati, 1954, Ph.D., 1957; physicist, Union Carbide Corporation, 1957–59; lecturer, City College of New York, 1958–59; senior research chemist to group leader, Harris Research Laboratories, Inc., 1959–65; associate director of research to technical director, research, Gillette Company, 1965–68; manager, special projects, Gillette Research Institute, 1968–69, and Harris Research Laboratories Division, 1968–72, vice president, 1971–72; director, research programs, National Center for Resource Recovery, Inc., 1972–; adjunct professorial lecturer, American University, 1974–75; Editorial Board, *Journal of Adhesion*, 1971–73; president, Washington Section, American Chemical Society, 1972; Solid Waste Management Committee, Society of the Plastics Industry, 1973; chairman, ASTM

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Committee E-38, Resource Recovery, 1973–; polymer and surface chemistry; adhesion; materials properties; resource recovery.

Patricia A. M. Figueras (chemistry), 1933; B.S., University of Michigan, 1953, M.A., 1957, Ph.D., 1958; M.S., University of Minnesota, 1954; senior research chemist, Eastman Kodak Company, 1958–67, research associate, 1968–; assistant lecturer in mathematics, University of Rochester, 1964–69; councilor, American Chemical Society, 1966–77, chairman, Committee on Chemical Education, 1972–73, Committee on Manpower Policy, 1973, and Council Policy Committee, 1974; Committee on Professional Training, ACS, 1974–76, Board of Directors, 1975–77; photographic applications of chemistry; organic sulfur chemistry; computer systems and software.

Bruce McDuffie (chemistry), 1921; A.B., Princeton University, 1942, M.A., 1946, Ph.D., 1947; research assistant, Manhattan Project, Princeton University, 1943–46; instructor, Emory University, 1947–51; associate professor, Washington & Jefferson College, 1951–58; associate professor, State University of New York, Binghamton (formerly, Harpur College), 1958–61, professor, 1961–, department chairman, 1961–65; research associate, University of North Carolina, 1965–66; president, Harpur College Chapter, American Association of University Professors, 1962–63; chairman, Binghamton Section, American Chemical Society, 1969; trace substances in air, water, sediments, foods, laboratory animals, and humans; water quality index and rivers; fundamental analytical studies in electrochemistry, spectrophotometry, and separation methods.

Bruno J. Zwolinski (physical chemistry), 1919; B.S., Canisius College, 1941; M.S., Purdue University, 1943; M.S., Princeton University, 1944, Ph.D., 1947; research scientist, Manhattan Project, 1944–45; ACS fellow, University of Utah, 1947–48, assistant professor, 1948–53; senior physicist, Stanford Research Institute, 1953–57; principal research chemist and director of research projects, Carnegie Institute of Technology, 1957–61; professor and director, Thermodynamics Research Center, Texas A & M University, 1961–; Texas A & M Faculty Distinguished Achievement Award in Research, 1969; ACS Southwest Award, 1971; Task Force, IUPAC Commission on Thermodynamics and Thermochemistry, 1965–; member-at-large, NBS-ASTM Joint Committee on Atomic and Molecular Physical Data, 1965–; Advisory Board, Scientific Documentation Centre, Ltd., United Kingdom, 1968–; NAS-NRC Advisory Panel on Raman Laser Excitation, 1968–; Board of Editors, *Raman Newsletter*, 1968–; president, Texas A & M Section, American Association of University Professors, 1970–71; editor, *ACS Journal of Chemical and Engineering Data*, 1971–; Executive Officer, International DATA Series Selected Data on Mixtures, 1973–; compilation of selected values of physical, thermodynamic and spectral data of chemical compounds; dynamic properties of liquids; charge or electron transfer phenomena in chemical kinetics.

Section D—Astronomy

Council Delegate (one to be elected for a 3-year term).

Edward Anders
Morton S. Roberts

Edward Anders (cosmochemistry), 1926; M.A., Columbia University, 1951, Ph.D., 1954; instructor, University of Illinois, 1954–55; assistant to associate professor, University of Chicago, 1955–62, professor, 1962–73, Horace B. Horton professor of physical sciences, 1973–; AAAS-Newcomb Cleveland Prize, 1959; J. Lawrence Smith Medal, NAS, 1971; Medal for Exceptional Scientific Achievement, NASA, 1973; American Academy of Arts and Sciences, 1973; Frederick C. Leonard Medal, Meteoritical Society, 1974; National Academy of Sciences, 1974; AAAS-Newcomb Cleveland Prize Committee of Judges, 1965–68; vice president, Commission 22, International Astronomical Union, 1970–73, Commission 17, 1973–76, Organizing Committee, Commission 15, 1973–76; vice president, Meteoritical Society, 1970–73; chairman, Division on Planetary Science, American Astronomical Society, 1971–72; origin of solar system; age and composition of meteorites and lunar rocks; abundances of the elements.

Morton S. Roberts (astronomy), 1926; B.A., Pomona College, 1948; M.S., California Institute of Technology, 1950; Ph.D., University of California, Berkeley, 1958; assistant professor, Occidental College, 1949–52; physicist, U.S. Naval Ordnance Testing Station, 1952–53; junior research astronomer, University of California, 1957–58; NSF fellow, 1958–59; lecturer, University of California, Berkeley, 1959–60, Harvard University, 1960–64; astronomer, National Radio Astronomy Observatory, 1964–, assistant director, Green Bank Operations, 1969–70; Visiting Professor Program, American Astronomical Society, 1965–75, chairman, Committee on Astronomical Motion Pictures, 1966–72, vice president, 1971–72, Russell Prize Selection Committee, 1975, Nominating Committee, 1976; secretary, Commission 28, International Astronomical Union, 1970–73; Council, AAAS, 1973–76; galactic and extragalactic structure; interstellar and intergalactic medium; radio astronomy.

Section Chairman-Elect (one to be elected for a 2-year term).

Paul W. Hodge
C. R. O'Dell

Paul W. Hodge (astronomy), 1934; B.S., Yale University, 1956; Ph.D., Harvard University, 1960; research associate, California Institute of Technology and Mt. Wilson and Palomar Observatories, 1960–61; lecturer, Harvard University, 1960–61; assistant professor, University of California, Berkeley, 1961–65; associate professor, University of Washington, 1965–69, professor, 1969–; Beckwith Prize, 1956; Bart J. Bok Prize, 1962; Board of Directors, Astronomical Society of the Pacific, 1968–74, vice president, 1973–74; Nominating Committee, American Astronomical Society, 1976; U.S. National Committee for the International Astronomical Union, 1976–78; extragalactic astronomy; the Magellanic Clouds; galactic evolution.

C. R. O'Dell (astronomy, astrophysics), 1937; B.S.Ed., Illinois State University, 1959; Ph.D., University of Wisconsin, 1962; Carnegie fellow, Hale Observatories, 1962–63; assistant professor, University of California, Berkeley, 1963–64; assistant to associate professor, University of Chicago, 1964–67, professor and department chairman, 1967–74, director, Yerkes Observatory, 1966–74; project scientist, Marshall Space Flight Center, 1974–;

Committee on Nominations, American Astronomical Society, 1968–69; NAS-NRC Astronomy Survey Committee, 1969–72; NAS Copernican Quincentennial Committee, 1971–74; U.S. National Committee for the International Astronomical Union; evolution of planetary nebulae; physical processes in and origin of comets; design of imaging optical systems for space.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Donald M. Hunten
Robert B. Partridge

Donald M. Hunten (planetary astronomy), 1925; B.Sc., University of Western Ontario, 1946; Ph.D., McGill University, 1950; research associate, University of Saskatchewan, 1950–52, assistant professor to professor, 1953–63; physicist, Kitt Peak National Observatory, 1963–; editor, Canadian Association of Physicists, 1961–63; associate editor, *Journal of Geophysical Research*, 1967–72; chairman, Division of Planetary Sciences, American Astronomical Society, 1976–77; planetary atmospheres—composition, structure, spectroscopy, direct probing; earth's upper atmosphere—aeronomy.

Robert B. Partridge (astronomy), 1940; A.B., Princeton University, 1962; Ph.D., Oxford University, 1965; assistant professor, Princeton University, 1967–70; associate professor, Haverford College, 1970–; Rhodes scholar, 1962; Sloan research fellow, 1971; committeeman, High Energy Astrophysics Division, American Astronomical Society, 1969–70; observational cosmology and radio astronomy, especially the cosmic microwave background; the early evolution of galaxies.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Thomas T. Arny
Laura Patricia Bautz
Leonard V. Kuhl
Joseph Veverka

Thomas T. Arny (astronomy), 1940; B.A., Haverford College, 1961; Ph.D., University of Arizona, 1965; research associate, Amherst College, 1965–66; assistant professor, University of Massachusetts, 1966–69, associate professor, 1969–73, associate chairman, Five College Astronomy Department, 1973–; interstellar matter: morphology of reflection and emission nebulae; fragmentation of interstellar clouds.

Laura Patricia Bautz (science administration, astronomy), 1940; B.A., Vanderbilt University, 1961; Ph.D., University of Wisconsin, 1967; instructor to assistant professor, Northwestern University, 1965–72; program director, Astronomy Section, National Science Foundation, 1972–73; associate professor, Northwestern University, 1973–75, assistant director, Office of Research and Sponsored Programs, 1974–75; senior staff associate, Mathematical and Physical Sciences, and Engineering, National Science Foundation, 1975–; Committee on Manpower and Employment, American Astronomical Society, 1973–75, chairman, 1974–75; science program evaluation; scientific manpower; science planning and budgeting; clusters of galaxies.

Leonard V. Kuhl (astronomy), 1936; B.A.Sc., University of Toronto, 1958; Ph.D., University of California, Berkeley, 1963; Car-

negie fellow, Mt. Wilson and Palomar Observatories, 1963–65; assistant professor, University of California, Berkeley, 1965–69, associate professor, 1969–; pre-main sequence stellar evolution; high temperature stars; mass loss.

Joseph Veverka (astronomy), 1941; B.Sc., Queen's University, 1964, M.Sc., 1965; M.A., Ph.D., Harvard University, 1970; research associate, Center for Radiophysics and Space Research, Cornell University, 1970–71, senior research associate, 1971–; physical properties of planetary surfaces and atmospheres; nature and origin of natural satellites.

Section E—Geology and Geography

Council Delegates (two to be elected for 3-year terms).

William E. Benson
Helen L. Cannon
Doris Malkin Curtis
Montis R. Klepper

William E. Benson (geology), 1919; B.A., Yale University, 1940, M.S., 1942, Ph.D., 1952; geologist, U.S. Geological Survey, 1942–54, chief, General Geology Branch, 1952–54; executive secretary, Division of Earth Sciences, National Academy of Sciences-National Research Council, 1954–55; chief geologist, Manidon Mining, Inc., 1955–56; program director, Division of Earth Sciences, National Science Foundation, 1956–60, section head, 1960–75, chief scientist, 1975–; Hurlbut-Runk Prize, 1937; Penfield Prize, 1939; vice president, Geological Society of Washington, 1958; Council, AAAS, 1966–76, secretary, Section on Geology and Geography, 1969–72, chairman, Section E, 1975, Committee on Council Affairs, 1975–76; ore deposits; coal deposits; stratigraphy; Pleistocene geology; marine geology.

Helen L. Cannon (biogeochemistry), 1911; A.B., Cornell University, 1932; M.S., University of Pittsburgh, 1934; geologist, Gulf Oil Company, 1934–35; U.S. Geological Survey, 1935–, Special Act Inventive Award, 1969, Meritorious Award, 1970, Distinguished Service Award, 1975; Council, AAAS, 1969–71, chairwoman, Section on Geology and Geography, 1976; chairman, NAS-NRC Subcommittee on Geochemical Environment in Relation to Health and Disease, 1970–73; Council, Society on Environmental Geochemistry and Health, 1971–72; Council, Geological Society of America, 1973–76, chairman, Committee on Environment and Public Policy, 1973–75; biogeochemical methods of prospecting; natural distribution of elements in soils and vegetation; additives attributable to man's activity as related to health and disease.

Doris Malkin Curtis (geology), 1914; B.A., Brooklyn College, 1933; M.A., Columbia University, 1934, Ph.D., 1949; geologist, American Museum of Natural History, 1937–39, Speed Oil Company and Fohs Oil Company, 1939–41; paleontologist, stratigrapher, geologist, Shell Oil Company, 1941–50; assistant to associate professor, University of Houston, 1950–52; assistant research geologist, Scripps Institution of Oceanography, 1952–54; assistant to associate professor, University of Oklahoma, 1954–59; paleontologist, geologist, senior geologist, staff geologist, Shell Oil Company, 1959–; secretary-treasurer, Society of Economic Paleontologists and Mineralogists, 1964–66, chairman, Nominating Com-

mittee, 1973; Nominating Committee, Geological Society of America, 1975; deltaic sedimentation; stratigraphy; paleoecology; sea level fluctuations; petroleum habitat.

Montis R. Klepper (geology), 1915; B.S., Pennsylvania State College, 1939; Ph.D., Yale University, 1950; research geologist, U.S. Geological Survey, 1941–57, assistant chief geologist to associate chief geologist, 1957–69; senior geological consultant, USAID, Indonesia, 1970–72; assistant director, Eastern Region, U.S. Geological Survey, 1972–74, assistant director, Energy and Mineral Resources, 1975–; Meritorious Service Award, U.S. Department of the Interior, 1973; Non-metallics Committee, American Institute of Mining, Metallurgical and Petroleum Engineers, 1949–53; Nominations Committee, Geological Society of America, 1969; co-editor, Bateman Volume, Society of Economic Geologists, 1969; president, Geological Society of Washington, 1969; factors influencing localization of metallic ore deposits; resource appraisal; geology and ore deposits of western Montana, Indonesia, Japan, Korea, and Brazil.

Section Chairman-Elect (one to be elected for a 2-year term).

Gerald M. Friedman
William W. Hambleton

Gerald M. Friedman (geology), 1921; B.Sc., University of London, 1945; M.A., Columbia University, 1950, Ph.D., 1952; assistant professor, University of Cincinnati, 1950–54; consulting geologist, Sault Ste. Marie, Ontario, 1954–56; research geologist and supervisor of research, Amoco Petroleum Corporation, 1956–64; professor, Rensselaer Polytechnic Institute, 1964–; Best Paper Award, *Journal of Sedimentary Petrology*, 1961, editor, 1964–70; Best Paper Award, Gulf Coast Section, Society of Economic Paleontologists and Mineralogists, 1974; treasurer, National Association of Geology Teachers, 1951–55, president, Oklahoma Section, 1962–63; Nominating Committee for Fellows, Mineralogical Society of America, 1967–69; president, Association of Earth Science Editors, 1972–73, Society of Economic Paleontologists and Mineralogists, 1974–75; sedimentology; stratigraphy; sedimentary tectonics; petrology.

William W. Hambleton (geology), 1921; B.S., Franklin and Marshall College, 1943; M.S., Northwestern University, 1947; Ph.D., University of Kansas, 1951; assistant to associate professor, University of Kansas, 1951–62, professor, 1962–, associate dean, Graduate School, 1967–68, associate dean of faculties, 1968–70; geophysicist, Chevron Oil Company, 1955; assistant to associate director, Kansas Geological Survey, 1956–67, director, 1970–; acting director, Kansas Energy Office, 1975; Board of Directors, Mid-Continent Research and Development Council, 1968–, president, 1972–73; chairman and director, Council on Education in the Geological Sciences, American Geological Institute, 1968–70, Committee on Geoscience Information, 1972–74; Research Committee, Interstate Oil Compact Commission, 1969–; NAS-NRC Panel on Disposal of Radioactive Waste in Salt, 1972–73; Committee on Stratigraphic Correlation, American Association of Petroleum Geologists, 1974–75; Mid-West Governors Conference Task Force on Energy Requirements and Environmental Protection, 1974–; Executive Advisory Committee, Natural Gas Survey, Federal Power Commission, 1975–; geo-

logical and geophysical studies of the continental interior; configuration and lithology of Precambrian basement rocks.

Members-at-Large of the Section Committee (one to be elected for a 4-year term).

Allen F. Agnew
Robert E. Wallace

Allen F. Agnew (geology), 1918; A.B., University of Illinois, 1940, M.S., 1942; Ph.D., Stanford University, 1949; assistant geologist, Illinois State Geological Survey, 1942; geologist, U.S. Geological Survey, 1942–55; assistant professor, University of Alabama, 1948–49; director, South Dakota State Geological Survey, and professor, University of South Dakota, 1955–63; professor and director, Water Resources Research Center, Indiana University, 1963–69; professor and director, Water Research Center, Washington State University, 1969–74; senior specialist, Mining & Mineral Resources, Congressional Research Service, Library of Congress, 1974–; Robert Peele Award, American Institute of Mining, Metallurgical and Petroleum Engineers, 1951; chairman, Hydrogeology Division, Geological Society of America, 1969; chairman, Universities Council on Water Resources, 1972; editor, American Institute of Professional Geologists, 1973–74; vice president, Association of Professional Geological Scientists, 1976; national minerals policy; water pollution from mining; geologic hazards.

Robert E. Wallace (geology), 1916; B.S., Northwestern University, 1938; M.S., California Institute of Technology, 1940, Ph.D., 1946; associate professor, Washington State University, 1946–51; chief, Southwestern Branch, U.S. Geological Survey, 1960–65, regional geologist, 1970–74, chief scientist, Office of Earthquake Studies, 1974–; Special Service Award, U.S. Geological Survey, 1968, Meritorious Award, 1973; chairman, Cordilleran Section, Geological Society of America, 1967–68, Research Grants Committee, 1969–70; Seismic Risk Committee, Earthquake Engineering Research Institute, 1971–; Committee on Seismology, NAS, 1971–77, Panel on the Public Policy Implications of Earthquake Prediction, Advisory Committee on Emergency Planning; Nominating Committee, Seismological Society of America, 1974, Board of Directors, 1976–79; president, Peninsula Geological Society, 1975–76; faulting and tectonics; regional geology; mineral deposits; engineering geology.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Irving A. Breger
John D. Haun
Lidia L. Selkregg
James W. Skehan

Irving A. Breger (geochemistry), 1920; B.S., Worcester Polytechnic Institute, 1941; S.M., Massachusetts Institute of Technology, 1947, Ph.D., 1950; assistant senior chemist, Kappers United Company, 1942–43; research chemist, Publicker Commercial Alcohol Company, 1943–45; research assistant to research associate, Massachusetts Institute of Technology, 1945–52; geochemist, U.S. Geological Survey, 1952–; Fulbright research grants, The Netherlands, 1950–51; Guggenheim fellow, 1966–67; adjunct professor, American University, 1957–68; visiting professor, University of Maryland, 1968–; associate editor, *Geochi-*

mica et Cosmochimica Acta, 1968–71, *Energy Sources*, 1973–; International Commission for Coal Petrology, 1951–; Coal Research Committee, Society of Economic Geologists, 1959–60; chairman, Coal Division, Geological Society of America, 1960, Organic Geochemistry Division, 1965, Committee on Gilbert H. Cady Award for Excellence in Coal Geology, 1973–75; Nominating Committee, U.S. National Committee for Geochemistry, NRC, 1974–75; origin and chemical structure of coal; origin and composition of crude oils and related substances; geochemistry of uranium.

John D. Haun (petroleum geology), 1921; B.A., Berea College, 1948; M.A., University of Wyoming, 1949, Ph.D., 1953; geologist, Stanolind (Amoco), 1951–52; vice president, Petroleum Research Corporation, 1952–55; professor, Colorado School of Mines, 1955–; consultant, Barlow & Haun, Inc., 1957–; Outstanding Professor Award, Colorado School of Mines, 1973; Distinguished Service Award, American Association of Petroleum Geologists, 1973; secretary, Rocky Mountain Association of Geologists, 1961, first vice president, 1964, president, 1968; chairman, Research Conferences Subcommittee of Research Committee, American Association of Petroleum Geologists, 1971–74, House of Delegates, 1973–78; Committee on Exploration, American Petroleum Institute, 1971–73; Publications Committee, American Geological Institute, 1972–; director, Association of Earth Science Editors, 1974–77; president, Association of Professional Geological Scientists, 1976; origin, migration, and entrapment of petroleum; regional stratigraphy and structural geology; statistical and geological methods of estimating the quantity of undiscovered petroleum resources.

Lidia L. Selkregg (natural sciences, geology and planning), 1920; Doctor of Natural Sciences, University of Florence, Italy, 1943; geologist, Illinois State Geological Survey, 1951–58; geologist-engineer, U.S. Army Corps of Engineers, 1958–59; technical director, staff geologist-planner, planning associate, assistant planner, Alaska State Housing Authority, 1961–68; capital improvement coordinator, City of Anchorage, 1968–69; planning specialist, Alaska Training and Planning Center, 1969–70; planning officer, Federal Field Committee for Development Planning in Alaska, 1970–71; professor, Arctic Environmental Information and Data Center, University of Alaska, 1971–; Special Achievement Award for Superior Performance, U.S. Department of Commerce, 1970; Greater Anchorage Area Borough Economic Development Commission, 1967–70; Advisory Committee to the Joint State-Federal Land Use Commission, 1972–75; president, Planning Association of Alaska, 1974; Alaska Growth Council, Office of the Governor, 1975–; Assembly of the Anchorage Municipality, 1975–77; applied geology; environmental planning; community and regional planning; land use; engineering community development.

James W. Skehan, S. J. (geology), 1923; A.B., Boston College, 1946, A.M., 1947; Ph.L., Weston College, 1947; A.M., Harvard University, 1951, Ph.D. (geology), 1953; S.T.B., Weston College, 1954, S.T.L., 1955; assistant to associate professor, Boston College, 1956–68, professor, 1968–, chairman, Department of Geology, 1958–68, and Department of Geology and Geophysics, 1968–70, assistant to associate director and director of funded research, Weston Observatory, 1956–72, acting director, 1973–74, director, 1974–,

director, Geology-Astrogeology Research Center, 1963–68, and Environmental Center, 1970–72, acting dean, College of Arts and Sciences, 1972–73, director, Energy Research Center, 1974–; Council, AAAS, 1963–72, member-at-large, Section Committee, Section on Geology and Geography, 1969–72; Board of Directors, General Economics Corporation, 1969–71; Membership Committee, Geological Society of America, 1970–, chairman, Northeastern Section, 1970–71; president, National Association of Geology Teachers, 1971–72; Committee on TV and Radio, American Institute of Professional Geologists, 1972–; secretary-treasurer, American Geological Institute, 1973; chairman, New England Section, Association of Engineering Geologists, 1974–75; geotectonics, origin, and development of the earth's crust with special reference to the origin of mountains.

Section G—Biological Sciences

Council Delegates (eight to be elected for 3-year terms).

Peter Albersheim
Robert D. Allen
Murray S. Blum
Mary A. Bonneville
Sears Crowell
M. Sue Hanlon
Ralph T. Hinegardner
William A. Jensen
Harlan Lewis
Charles B. Metz
Hope T. M. Ritter, Jr.
Bodil Schmidt-Nielsen
Anna N. Taylor
James G. Townsel
Ruth D. Turner
Judith H. Willis

Peter Albersheim (biochemistry), 1934; B.S., Cornell University, 1956; Ph.D., California Institute of Technology, 1959; instructor to assistant professor, Harvard University, 1960–64; associate professor, University of Colorado, 1964–67, professor of biochemistry, 1967–, professor of molecular, cellular, and developmental biology, 1970–; NSF fellow, Swiss Federal Institute of Technology; Charles A. Shull Award, American Society of Plant Physiologists, 1973; Editorial Boards, *Plant Physiology* and *Phytopathology*, 1974; host-pathogen and host-symbiont interactions in plants; structure of the primary cell wall; plant growth regulation; the world food prospect.

Robert D. Allen (cell biology, biophysics), 1927; A.B., Brown University, 1949; Ph.D., University of Pennsylvania, 1953; instructor, University of Michigan, 1954–56; assistant to associate professor, Princeton University, 1956–66; professor, State University of New York, Albany, 1966–75, department chairman, 1966–72; professor of biological sciences and department chairman, Dartmouth College, 1975–; USPHS fellow, Wenner-Gren Institute, 1953–54; Guggenheim fellow, 1961, 1966; visiting professor, Japan Society for the Promotion of Science, 1974; trustee, Marine Biological Laboratory; treasurer, Society of General Physiologists, 1963–65, president, 1973–74; Council, American Society for Cell Biology, 1974–.

Murray S. Blum (physiology, biochemistry), 1929; B.S., University of Illinois, 1952, M.S., 1953, Ph.D., 1955; assistant professor to professor, Louisiana State University,

1958–66; professor of entomology, University of Georgia, 1967–; NSF fellow, England, 1965–66; chairman, Physiology Section, Entomological Society of America, 1964, Grant Study Section, U.S. Communicable Disease Center, 1969–70, Grant Study Section, U.S. Food and Drug Administration, 1971–72, Grant Study Section, U.S. Environmental Protection Agency, 1972–73; Regulatory Biology Grant Study Section, NSF, 1975–; chairman, Behavior Section, International Congress of Entomology, 1976; Editorial Boards, *Journal of Chemical Ecology*, *Biochemical Systematics and Ecology*, *Insect Biochemistry*, and *Entomologia Experimentalis et Applicata*; identification, biochemistry, function, and evolutionary significance of arthropod natural products.

Mary A. Bonneville (cytology, histology), 1931; B.A., Smith College, 1953; M.A., Amherst College, 1955; Ph.D., Rockefeller University, 1961; assistant, Department of Anatomy, College of Physicians and Surgeons, Columbia University, 1961–63; research associate, Tufts University, 1963–64; assistant professor, Brown University, 1964–66; research associate, Massachusetts General Hospital, 1966–67; lecturer, Harvard University, 1967–70; assistant professor, University of Colorado, 1970–74, associate professor of molecular, cellular and developmental biology, 1974–; Nominating Committee, American Society for Cell Biology, 1972; NAS and NIH panels for evaluation of fellowship applications, 1973–74; mechanisms of cytodifferentiation, especially the formation of the plasma membrane at specialized cell surfaces.

Sears Crowell (zoology, developmental biology), 1909; A.B., Bowdoin College, 1930; M.A., Harvard University, 1931, Ph.D., 1935; instructor, Brooklyn College, 1935–36; instructor to associate professor, Miami University, 1936–48; assistant professor to professor, Indiana University, 1948–; Council, AAAS, 1954–55, member-at-large, Section Committee, Section on Zoological Sciences, 1957–60; program officer, American Society of Zoologists, 1957–59; trustee, Marine Biological Laboratory, 1958–66, 1967–75, Executive Committee, 1963–66, 1967–70, secretary, Board of Trustees, 1972–75; managing editor, *American Zoologist*, 1961–65; developmental problems in hydroids.

M. Sue Hanlon (biochemistry), 1933; B.S., Louisiana State University, 1954; Ph.D., University of California, Berkeley, 1961; instructor to assistant professor, Chicago Medical School, 1963–66; assistant professor, University of Illinois College of Medicine, 1966–69, associate professor, 1969–; NSF fellow, 1961–62; NIH fellow, 1962–63; Triennial Research Award, Iota Sigma Pi, 1966; NATO Postdoctoral Fellowship Evaluation Panel, 1972–75; Nominating Committee, Division of Biological Chemistry, American Chemical Society, 1973–74; NSF Predoctoral Fellowship Evaluation Panel, 1974–76; physical biochemistry: conformational properties of proteins and nucleic acids.

Ralph T. Hinegardner (developmental biology), 1931; B.A., Denison University, 1953; M.S., University of Southern California, 1957; Ph.D., University of Hawaii, 1961; assistant to associate professor, Columbia University, 1963–67; associate professor to professor, University of California, Santa Cruz, 1968–; USPHS research fellow, University of Hawaii, 1960–63; AAAS-Newcomb Cleveland Prize Committee of Judges, 1972–74; developmental genetics of the sea urchin; molec-

ular evolution, particularly the evolution of cellular DNA content.

William A. Jensen (botany), 1927; Ph.B., University of Chicago, 1949, M.S., 1950, Ph.D., 1953; assistant professor, University of Virginia, 1956–57; assistant professor, University of California, Berkeley, 1957–61, professor, 1961–; postdoctoral fellow, California Institute of Technology, 1953–55, University of Brussels, 1955–56; New York Botanic Garden Award for Botanical Research, 1965; Ohaus Award, National Science Teachers Association, 1976; vice president, Botanical Society of America, chairman, Developmental Section, Pacific Section, and Teaching Section; secretary, Society for Developmental Biology, 1962–64; Council, AAAS, 1966–70, 1974–76, vice president, AAAS, and chairman, Section on Biological Sciences, 1969–70; plant embryology; cell ultrastructure; botanical histochemistry.

Harlan Lewis (botany), 1919; B.A., University of California, Los Angeles, 1941, M.A., 1942, Ph.D., 1946; assistant instructor to associate professor, University of California, Los Angeles, 1942–56, professor, 1956–, department chairman, 1959–62, dean, Division of Life Sciences, 1962–; NRC fellow, 1947–48; Guggenheim fellow, 1955–56; secretary, Society for the Study of Evolution, 1952–58, president, 1961, chairman, Nominating Committee, 1962, 1966, 1975; vice president, California Botanical Society, 1956; Council, AAAS, 1958, 1966–67, 1974–76, member-at-large, Section Committee, Section on Botanical Sciences, 1964–67, chairman, Council Committee on Fellows, 1974–75; president, Pacific Division, Botanical Society of America, 1959, American Society of Naturalists, 1971, Southern California Horticultural Institute, 1975; Executive Committee, International Organization of Plant Biosystematists, 1960–64, president, 1969–75; Editorial Boards, *American Naturalist*, 1964–67, *American Journal of Botany*, 1965–68; National Committee of Plant Science Societies, 1964–68; International Committee on Chemotaxonomy, 1964–; president, American Society of Plant Taxonomists, 1969, Council, 1970–77; editor, *Evolution*, 1972–74; trustee and Selection Committee, Graeme Joseph Revolving Scholarship Fund, 1968–; Board of Directors, Los Leones Arboretum Foundation, 1973–; evolutionary mechanisms, particularly of higher plants.

Charles B. Metz (developmental and reproductive biology), 1916; B.A., Johns Hopkins University, 1939; Ph.D., California Institute of Technology, 1942; instructor, Wesleyan University, 1942–46; instructor to assistant professor, Yale University, 1946–52; associate professor, University of North Carolina, 1952–53; associate professor to professor, Florida State University, 1953–64, associate director, Oceanographic Institute, 1958–62; professor of biology, University of Miami, 1964–; NRC fellow, 1945–46; Gosney fellow, 1950; Frank R. Lillie fellow, 1953; visiting assistant professor, University of California, Berkeley, 1952; trustee, Marine Biological Laboratory, 1955–72; secretary, American Society of Zoologists, 1961–63, secretary, Division of Developmental Biology; Editorial Board, *Biological Bulletin*, 1968–71; Board of Associate Editors, *Biology of Reproduction*, 1969–72; Panel on Gravity, NAS Space Science Board; NASA Environmental Biology Panel; NSF Science Faculty Fellowship Panel; cellular and developmental biology with

emphasis on cellular and comparative aspects of reproduction, particularly initiation of development.

Hope T. M. Ritter, Jr. (cell biology), 1919; A.B., Cornell University, 1943; S.M., Lehigh University, 1947, Ph.D., 1955; instructor to assistant professor, Lehigh University, 1955–57; research fellow, Harvard University, 1957–59, lecturer, 1959–61; assistant professor, State University of New York, Buffalo, 1961–66; professor, University of Georgia, 1966–; biology of hypermastigote protozoa; chitin synthesis in vitro.

Bodil Schmidt-Nielsen (physiology), 1918; D.D.S., University of Copenhagen, 1941, D.Odont., 1946, Ph.D., 1955; instructor to assistant professor, University of Copenhagen, 1941–46; research associate, Swarthmore College, 1946–48, Stanford University, 1948–49; research associate to assistant professor, University of Cincinnati, 1949–52; research associate to associate research professor, Duke University, 1952–64; professor, Case Western Reserve University, 1964–71, adjunct professor, 1971–, department chairman, 1970–71; research scientist, Mount Desert Island Biological Laboratory, 1971–, trustee, 1955–69; visiting professor, Brown University, 1971–; Guggenheim fellow, 1952–53; Career Award, NIH, 1962–64; Physiology Training Committee, NIH, 1967–71; Council, Society of Experimental Biology and Medicine, 1967–71, American Physiological Society, 1971–75, president, 1975–76; fellow, American Academy of Arts and Sciences, 1973; biochemistry of saliva; water metabolism of desert animals; comparative kidney physiology; comparative physiology of excretory organs; osmoregulation in aquatic animals; physiological effects of heavy metals.

Anna N. Taylor (physiology, anatomy), 1933; A.B., Western Reserve University, 1955, Ph.D., 1961; instructor to assistant professor, Western Reserve University, 1962–65; assistant professor, Baylor University College of Medicine, and research specialist, Houston State Psychiatric Institute, 1965–67; assistant research anatomist to assistant professor in residence, University of California, Los Angeles, 1967–70, associate professor in residence, 1970–; USPHS fellow, 1956–61; American Heart Association research fellow, 1961–65; NIMH Research Scientist Development Award, II, 1972–77; Council, AAAS, 1974–76, Council Committee on Fellows, 1975–76; neuroendocrinology; brain-pituitary-adrenal interactions.

James G. Townsel (neurobiology), 1935; B.S., Virginia State College, 1958; Ph.D., Purdue University, 1968; assistant instructor, Virginia State College, 1963, associate professor, 1967–71; visiting associate professor, National Institutes of Neurological Diseases and Stroke, and special fellow and Porter development fellow, Harvard Medical School, 1971–73; coordinator, NINDS Frontiers in Research, and teaching fellow, Marine Biological Laboratory, 1973–75; assistant professor, Meharry Medical College, 1973–75, associate director to director, Meharry MBS Program, 1975–; NSF predoctoral fellow, 1965; NIH predoctoral fellow, 1965–67; vice chairman, Biology Section, Virginia Academy of Science, 1968; assistant executive secretary, National Institute of Science, 1972–73; biochemical substrata of neuronal transmission specificity.

Ruth D. Turner (malacology, marine biology), 1914; B.S., Bridgewater State College,

1936; M.A., Cornell University, 1944; Ph.D., Radcliffe College, 1954; public school teacher, 1936–39; assistant director of education and assistant curator of birds, New England Museum of Natural History (now Boston Museum of Science), 1939–42; instructor, Vassar College, 1942–44; biologist, W. F. Clapp Laboratories, 1944–46; research assistant, Museum of Comparative Zoology, Harvard University, 1946–54, research associate in malacology, 1954–75, Alexander Agassiz fellow in zoology and oceanography, 1963–75; lecturer, Harvard University, 1967–71, 1974–75, professor of biology and curator in malacology, 1975–; CSIRO research fellow, Melbourne, and visiting fellow, University of New South Wales, 1970–71; president, American Malacological Union, 1956–57; Editorial Board, *Mollusks*, Society of Systematic Zoology, 1965, Council, 1975; consulting editor, *Nautilus*, 1973; Council, AAAS, 1974–76, Council Committee on Fellows, 1974–75; associate editor, *Malacologia*, 1974; benthic marine gastropods of the North Atlantic; life history studies of Bivalvia; the role of plant materials in deep sea ecosystems.

Judith H. Willis (biology), 1935; A.B., Cornell University, 1956; A.M., Radcliffe College, 1957, Ph.D., 1961; instructor to assistant professor, University of Illinois, 1963–68, associate professor, 1968–; NIH postdoctoral fellow, Oxford University, 1961–62; U.S.-NAS exchange scientist, Entomological Institute, Prague, 1975; chairman, Nominating Committee, American Society of Cell Biologists, 1964; member designate, Aging Review Committee, NIH, 1976; developmental biology; endocrinology; action of juvenile hormone and ecdysone on cuticle formation in vivo and in vitro.

Section Chairman-Elect (one to be elected for a 2-year term).

Ursula K. Abbott
Howard A. Bern

Ursula K. Abbott (developmental genetics), 1927; B.S.A., University of British Columbia, 1949, M.S.A., 1950; Ph.D., University of California, Berkeley, 1955; instructor to associate professor, University of California, Davis, 1955–67, professor and geneticist, 1967–; Guggenheim fellow, 1960–61; Poultry Science Research Prize, 1960; Subcommittee on Genetic Stocks, Genetics Society, 1967–72; Nominating Committee, Developmental Biology Society, 1969; Council, American Genetics Association, 1969–71; Panel on Developmental Biology, NSF, 1969–71; president, Davis Chapter, Sigma Xi, 1974–75; AEC Task Force on Environmental Effects on Early Mammalian Development, 1975; avian experimental embryology and teratology; gene-environment interactions, including effects of pesticides on embryonic development; mutants as pilot animals in biomedical research; tissue interactions.

Howard A. Bern (zoology), 1920; B.A., University of California, Los Angeles, 1941, M.A., 1942, Ph.D., 1948; instructor to associate professor, University of California, Berkeley, 1948–61, professor, 1961–, research endocrinologist, Cancer Research Laboratory, 1961–; Guggenheim fellow, 1951–52; NSF fellow, 1958–59, 1965–66; fellow, Center for Advanced Studies in the Behavioral Sciences, 1960; Distinguished Teaching Award, 1972; National Academy of Sciences, 1973; visiting professor, University of Bristol, 1965–66, Uni-

versity of Kerala, 1967, University of Tokyo, 1971; chairman, Division of Comparative Endocrinology, American Society of Zoologists, 1964, president, ASZ, 1967; Advisory Committee, American Cancer Society, 1967–70; U.S. National Committee on IUBS, 1970–75; Editorial Boards, *General and Comparative Endocrinology*, 1960–, *International Review of Cytology*, 1970–, *Neuroendocrinology*, 1973–, *Anatomia Histologia Embryologia*, 1974–; associate editor, *Cancer Research*, 1975–; comparative endocrinology, prolactin and mammary gland physiology and tumorigenesis; neurosecretion; osmoregulation; long-term effects of perinatal exposure to hormones.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Lawrence Bogorad
S. Allen Counter, Jr.

Lawrence Bogorad (plant physiology), 1921; B.S., University of Chicago, 1942, Ph.D., 1949; instructor to associate professor, University of Chicago, 1948–61, professor, 1961–67; professor of biology, Harvard University, 1967–, department chairman, 1974–76; Merck NRC-NAS fellow, 1951–53; Fulbright research scholar, 1960; NSF fellow, 1960–61; USPHS research career award, 1963–67; Editorial Committee, *Annual Review of Plant Physiology*, 1963–67; Molecular Biology Study Section, NIH, 1966–70; president, American Society of Plant Physiologists, 1968–69; chairman, Gordon Research Conference on the Chemistry and Biology of Pyrrole Compounds, 1970; Council, American Society for Cell Biology, 1971–74; chairman, Botany Section, NAS, 1974–77; biosynthesis of porphyrins, plant growth and development; chloroplasts.

S. Allen Counter, Jr. (bioacoustics, behavioral biology), 1944; S.B., Tennessee State University, 1965; Ph.D., Case Western Reserve University, 1970; NIH research trainee, Case Western Reserve University 1967–70, teaching fellow, 1968–70; associate in neurology, Harvard Medical School, 1970–; director, Auditory Unit, Kennedy Shriver Research Center, 1970–; assistant neurophysiologist, Massachusetts General Hospital, 1971–; assistant professor of biology, Harvard University, 1972–; resident tutor, Radcliffe College, 1972–; Milton Scientific Grant Award, 1972; Eppley Scientific Grant Award, 1973; National Advisory Mental Health Council, NIMH, 1971–74; president, Harvard University Association of Black Faculty, Fellows, and Administrators, 1971–73; neurobiological mechanisms of auditory communication.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

James F. Case
Nancy S. Milburn
Roger D. Milkman
Betty M. Twarog

James F. Case (physiology), 1926; Ph.D., Johns Hopkins University, 1951; physiologist, Agricultural Research Center, U.S. Department of Agriculture, 1951, Army Chemical Center, 1955–57; assistant to associate professor, University of Iowa, 1957–61; associate professor to professor of biology, University of California, Santa Barbara, 1961–; instructor to instructor-in-charge, In-

vertebrate Zoology, Marine Biological Laboratory, summers, 1959–61, 1969–71; Bruce fellow, Johns Hopkins University, 1951; Carnegie Foundation fellow, 1967; program chairman, Division of Comparative Physiology, American Society of Zoologists, 1967–68, chairman, 1971–72; trustee, Marine Biological Laboratory, 1970–, Executive Committee, 1972–; invertebrate neurobiology; physiology of bioluminescence in insects and marine animals.

Nancy S. Milburn (physiology, electron microscopy), 1927; A.B., Radcliffe College, 1949, Ph.D., 1959; M.S., Tufts University, 1950; research assistant, Harvard University, 1957–58, research associate in insect neurophysiology, 1958–; instructor to associate professor, Tufts University, 1958–71, professor of biology, 1971–, acting department chairman, 1967–68, dean, Jackson College for Women, and associate dean of instruction, 1972–; editor, *The Physiology Teacher*; Advisory Council, Institute for Laboratory Animal Resources, National Research Council, 1972–75; Council for International Exchange of Scholars; Administrators Committee for the Concerns of Women in New England Colleges and Universities; Program Project Review Committee B, National Institute of Neurological and Communicative Disorders and Stroke; vice chairman, Four-Year Academic Advisory Committee, Massachusetts Board of Higher Education; director, New England Society of Electron Microscopists; corporation member, Woods Hole Oceanographic Institution; neurophysiology, especially synaptic transmission, neurohormones, and synaptic transmitters; electron microscopy of insect nervous system, receptor organs, effectors.

Roger D. Milkman (genetics), 1930; A.B., Harvard University, 1951, A.M., 1954, Ph.D., 1956; instructor to assistant professor, University of Michigan, 1957–60; associate professor to professor, Syracuse University, 1960–68; professor of zoology, University of Iowa, 1968–; investigator, Marine Biological Laboratory, 1960–72, instructor, 1961–63; NSF fellow, 1956–57; NIH fellow, 1966–67; secretary, Society of General Physiologists, 1963–65; associate editor, *Evolution*, 1974–76; Education Committee, Genetics Society of America, 1975–; evolutionary genetics: development; insect physiology; *Drosophila*, *Escherichia coli*; ascidians, mussels, and other marine forms.

Betty M. Twarog (muscle physiology, neuropharmacology), 1927; A.B., Swarthmore College, 1948; M.S., Tufts College, 1949; Ph.D., Radcliffe College, 1952; research assistant, Harvard University, 1951–52, Cleveland Clinic Foundation, 1952–53; research associate, Tufts University, 1953–55; research fellow to instructor, Harvard University, 1956–60; USPHS research fellow, Oxford University, Oxford, England, 1960–61; assistant professor, New York University, 1961–65; research fellow, Harvard University, 1964–66; assistant to associate professor, Tufts University, 1966–71, professor, 1971–75; professor, State University of New York, Stony Brook, 1975–; Guggenheim fellow, University of Melbourne, 1973; Physiology Study Section, NIH, 1971–75; councilor, Society of General Physiologists, 1974–; Education Committee, American Physiological Society, 1975–; control of contraction and relaxation in smooth muscles by nerves and neural mediators; basis of resistance of nerve in certain bivalve species to paralytic shellfish toxin.

Section H—Anthropology

Council Delegate (one to be elected for a 3-year term).

Clifford R. Barnett
Nancie L. Gonzalez

Clifford R. Barnett (cultural anthropology), 1929; B.S.S., City College of New York, 1950; M.A., Cornell University, 1951, Ph.D., 1960; resident in professional practice, Russell Sage Foundation, 1961–63; assistant director to acting director, Program in Medicine and Behavioral Sciences, Stanford University, associate professor to professor, 1964–; Milbank Memorial Fund fellow, 1971–72; Executive Board, Society for Medical Anthropology, 1971–73; chairman, Committee on Ethics, American Anthropological Association, 1971–74; president, Society for Applied Anthropology, 1972–73.

Nancie L. Gonzalez (cultural anthropology), 1929; B.S., University of North Dakota, 1951; M.A., University of Michigan, 1955, Ph.D., 1959; instructor in nutrition, Jamestown College, 1952–53; visiting lecturer, University of California, Berkeley, 1959–60; professor, University of San Carlos, Guatemala, 1961–63; research anthropologist, Institute of Nutrition of Central America and Panama, 1961–63; visiting assistant professor to associate professor, University of New Mexico, 1965–69; professor and assistant chairperson to chairperson, University of Iowa, 1969–72; professor, Boston University, 1972–, chairperson, 1972–75; director, Anthropology Program, National Science Foundation, 1975–; Nominations Committee, American Anthropological Association, 1969–71, chairperson, 1970–71; Executive Boards, Council on Anthropology and Education, 1969–72, American Ethnological Society, 1970–73, Society for Applied Anthropology, 1970–73, Central States Anthropological Society, 1971–73; coordinator, Women's Committee, Latin American Studies Association, 1973–74; president, Society for Applied Anthropology, 1974–75; applied anthropology; black Carib household structure; matrix-focality; nutrition; health.

Section Chairman-Elect (one to be elected for a 2-year term).

June Helm
Thomas Weaver

June Helm (cultural anthropology), 1924; Ph.B., University of Chicago, 1944, A.M., 1949, Ph.D., 1958; lecturer, Carleton University, 1949–59, University of Manitoba, 1953; assistant to associate professor, University of Iowa, 1960–66, professor, 1966–; Board of Directors, Human Relations Area Files, 1962–66; editor of publications, American Ethnological Society, 1964–68; Editorial Council, American Anthropological Association, 1964–68, Executive Board, 1972–75; Council, AAAS, 1967–69; Awards Committee, NSF-NATO postdoctoral fellowship in science, 1969; social organization of hunting-gathering societies; cultural ecology; ethnology and ethnohistory of the American subarctic.

Thomas Weaver (cultural anthropology), 1929; B.A., University of New Mexico, 1955, M.A., 1960; Ph.D., University of California, Berkeley, 1965; assistant professor, University of Kentucky, 1964–67; assistant professor and Maurice Falk senior faculty fellow, University of Pittsburgh, 1967–69; associate professor, University of Arizona, 1969–75, pro-

fessor, 1975-; Whitney Foundation fellow, 1962-63; associate editor, *Ethnology*, 1967-69; Executive Committee, Society for Applied Anthropology, 1969-70, secretary, 1971-74, president, 1976-77; chairman, Committee on Minorities and Anthropology, American Anthropological Association, 1970-74; Electorate Nominating Committee, AAAS Section on Anthropology, 1974-76; social and cultural anthropology; Latin America; Mexico; American Indians; ethnic groups; urban anthropology; medical anthropology.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

M. Margaret Clark
Delmos J. Jones

M. Margaret Clark (medical anthropology), 1925; B.S., Southern Methodist University, 1945; Ph.D., University of California, Berkeley, 1957; research anthropologist, U.S. Public Health Service, 1957-58; field anthropologist and lecturer, University of California, 1958-59; senior research anthropologist, University of California, San Francisco, 1960-73, professor of anthropology in residence, 1960-74, professor, 1974-; lecturer and research coordinator, Navajo Health Education Project, University of California, Berkeley, 1968; Editorial Boards, *International Journal of Aging and Human Development*, 1970-, *Reviews in Anthropology*, 1973-; president, Society for Medical Anthropology, 1972-73; Executive Council, Gerontological Society, 1973-76, vice president, 1974-75; Executive Boards, American Anthropological Association, 1974-77, Society for Applied Anthropology, 1974-77; social gerontology; culture and personality of adult life; subcultural groups in the U.S., particularly Mexican-Americans.

Delmos J. Jones (social anthropology), 1936; B.A., San Francisco State College, 1959; M.A., University of Arizona, 1962; Ph.D., Cornell University, 1967; assistant professor, University of Colorado, 1967-70; associate professor, City University of New York, 1970-; associate and commentary editor, *Human Organization*, 1970-73; Executive Board, Society for Applied Anthropologists, 1972-75; urban problems; socio-cultural change; innergroup relations.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Solomon H. Katz
Frank E. Poirier
James P. Spradley
Alvin W. Wolfe

Solomon H. Katz (biological anthropology), 1939; B.A., Northeastern University, 1963; M.A., University of Pennsylvania, 1966, Ph.D., 1967; assistant professor, University of Pennsylvania, 1968-72, associate professor of physical anthropology and pediatric dentistry, 1972-, director, W. M. Krogman Center for Research in Child Growth and Development; medical research scientist, Eastern Psychiatric Institute, 1967-73; corresponding

editor, *Comments on Contemporary Psychiatry*, 1970-73; associate editor, *Human Ecology*, 1970-74, *Zygon*, 1974-75; chairman, Committee on Public Information, American Association of Physical Anthropologists, 1970-75; Council, AAAS, 1973, Advisory Commission on World Population Year, 1974; biosocial and medical anthropology; human ecology and demography; human growth, development, and aging.

Frank E. Poirier (physical anthropology), 1940; B.A., Paterson State College, 1962; M.A., University of Oregon, 1964, Ph.D., 1967; assistant professor, University of Florida, 1967-68; assistant to associate professor, Ohio State University, 1968-73, professor, 1973-; Outstanding Young Scientist Award, 1974; ecology and social behavior of non-human primates; human ethology; primate socialization and learning; biocultural evolution.

James P. Spradley (cultural anthropology), 1933; B.A., Fresno State College, 1960; M.A., University of Washington, 1963, Ph.D., 1967; instructor, Seattle Pacific College, 1963-66; assistant professor, University of Washington, 1966-69; associate professor, Macalester College, 1969-73, professor, 1973-; Stirling Award in Culture and Personality, American Anthropological Association, 1969, Ethics Committee, 1971-75, chairman, 1974-75; urban anthropology; culture and cognition; anthropology of complex societies; anthropology and literature.

Alvin W. Wolfe (cultural anthropology), 1928; A.B., University of Nebraska, 1950; Ph.D., Northwestern University, 1957; instructor, Middlebury College, 1955-57; assistant professor, Lafayette College, 1957-61; assistant to associate professor, Washington University, 1961-68; professor, University of Wisconsin, Milwaukee, 1968-74, department chairman, 1970-72; professor, University of South Florida, 1974-; Fulbright scholar, Louvain; president, Missouri Society for Sociology and Anthropology; Executive Committee, Society for Applied Anthropology, secretary; Executive Committee, Wisconsin Anthropological Society; applied and urban anthropology; anthropological study of complex societies; economic development; network analysis.

Section J—Psychology

Council Delegate (one to be elected for a 2-year term).

James A. Bayton
Yvonne Brackbill

James A. Bayton (psychology), 1912; B.S., Howard University, 1935, M.S., 1936; Ph.D., University of Pennsylvania, 1943; associate professor, Virginia State College, 1939-43; social science analyst, U.S. Department of Agriculture, 1943-45, 1948-53; professor, Southern University, 1945-46, Morgan State College, 1946-47, Howard University, 1947-; vice president, National Analysts, Inc., 1958-62; senior fellow, Brookings Institution, 1967-68; Superior Service Award, USDA, 1954; Alpha Kappa Psi Award, American Marketing Association, 1958; personality; stereotyping; organizational psychology; consumer behavior.

Yvonne Brackbill (psychology), 1928; B.A., University of California, 1950; M.A., University of Colorado, 1953; Ph.D., Stanford University, 1956; instructor, San Jose State College, 1956-57; research associate, National

Institute of Mental Health, 1957-58; professional associate, Bio-Sciences Information Exchange, 1958-59; research fellow and instructor, Johns Hopkins University, and instructor, McCoy College, 1959-61; associate professor to research professor, University of Denver, 1961-70; professor, Georgetown University School of Medicine, 1970-75; graduate research professor, Department of Psychology, University of Florida, 1975-, professor of obstetrics and gynecology, Medical School, 1975-; associate, Center for Neurobiological Science, 1975-; exchange scientist, U.S.-U.S.S.R. National Academies, 1970; overseas fellow, University of Cambridge, 1973-74; Research Scientist Award, NIMH, 1970-75; Board of Convention Affairs, American Psychological Association, Council of Representatives, Task Force on the Status of Women in Psychology, Executive Council, Division of Developmental Psychology; scientific accountability and biomedical research; developmental psychophysiology; developmental psychopharmacology; cognition-information processing, learning, memory.

Section Chairwoman-Elect (one to be elected for a 2-year term).

Dorothea Jameson
Brenda Milner

Dorothea Jameson (psychology), 1920; B.A., Wellesley College, 1942; research assistant, Harvard Graduate School of Business Administration, 1941-47; research psychologist, Eastman Kodak Company, 1947-57; research scientist, New York University, 1957-62; research associate to professor, University of Pennsylvania, 1962-74; adjunct professor, Columbia University, 1974-; university professor, University of Pennsylvania, 1975-; visiting professor, University of Rochester, 1974-; Howard Crosby Warren Medal, Society of Experimental Psychologists, 1971; Distinguished Scientific Contribution Award, American Psychological Association, 1972; I. H. Godlove Award, Inter-Society Color Council, 1973; Wellesley College Alumnae Achievement Award, 1974; National Academy of Sciences; Executive Council, NAS-NRC Vision Committee, 1970-72; Committee on Scientific Awards, APA, 1973-, chairman, 1974-75; Committee for Visual Psychophysics and Physiological Optics, Association for Research in Vision and Ophthalmology, 1975-; visual mechanisms; perception; art and sensory physiology.

Brenda Milner (psychology), 1918; B.A., University of Cambridge, 1939, M.A., 1949; Ph.D., McGill University, 1952; professor agrégé, University of Montreal, 1944-52; research associate, McGill University, 1952-53, lecturer, 1953-60, assistant to associate professor, 1960-70, professor, 1970-; head, Psychological Research Unit, Montreal Neurological Institute; Kathleen Stott Prize for Medical and Scientific Research, University of Cambridge, 1971; Distinguished Scientific Contribution Award, American Psychological Association, 1973; Lennox lecturer, American Epilepsy Society, 1974; president, Division of Physiological and Comparative Psychology, American Psychological Association, 1972; brain and human behavior, including the complementary specializations of the two cerebral hemispheres and their modes of interaction; effects of early brain lesions on the pattern of cerebral organization at maturity and the more general problem of neural plasticity.

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Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Judith P. Goggin

Mary R. Haworth

Judith P. Goggin (psychology), 1934; B.A., Bryn Mawr College, 1956; Ph.D., University of California, Berkeley, 1964; research and teaching assistantships, University of California, Berkeley, 1959-64; NSF postdoctoral fellow, Human Performance Center, University of Michigan, 1964-65; assistant professor, 1965-69; associate professor, University of Texas, El Paso, 1969-75; department chairman, 1971-, professor, 1975-; visiting associate professor, University of California, Berkeley, 1970-71; Editorial Board, *Journal of Experimental Psychology*, 1970-72, special action editor, 1972-74; Editorial Boards, *Psychonomic Science*, 1971-72, *Memory and Cognition*, 1973-; associate editor, *Journal of Experimental Psychology: Human Learning and Memory*, 1974-; Program Committee, Midwestern Psychological Association, 1975-78; human learning and memory, especially short-term memory; effects of aging and senility on learning and memory.

Mary R. Haworth (psychology), 1911; A.B., University of Illinois, 1932; M.S., Iowa State College, 1933; Ph.D., Pennsylvania State University, 1956; instructor, Pennsylvania State University, 1952-56; instructor to assistant professor, Michigan State University, 1956-61; assistant to associate professor, University of Nebraska College of Medicine, 1961-67; executive secretary, Research Career Program, National Institute of Mental Health, 1967-68, chief, Research Scientist Development Section, Division of Extramural Research Programs, 1968-; secretary, Society for Projective Techniques, 1966-68; development of objective indices for personality assessment; analyzing play behavior of disturbed children; development of a test of visual motor skills.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

David H. Crowell

Arthur L. Irion

Herschel W. Leibowitz

Wilse B. Webb

David H. Crowell (developmental psychophysiology), 1919; B.A., Drew University, 1946; Ph.D., State University of Iowa, 1950; assistant to associate professor, University of Hawaii, 1950-57; assistant professor, Child Welfare Research Station, State University of Iowa, 1957-58; professor and director, Newborn Psychological Research Laboratory, University of Hawaii, 1958-; visiting fellow, Yale University, 1966-67; Mental Retardation Research and Training Committee, National Institute of Child Health and Human Development, 1973-77; president-elect, Hawaiian Academy of Science, 1976; Board of Directors, Western Electroencephalography Society, 1976-79; developmental psychophysiology with focus on human newborns; infant growth and development.

Arthur L. Irion (experimental psychology), 1918; B.A., University of Missouri, 1939; M.A., University of Iowa, 1941, Ph.D., 1947; instructor to associate professor, University of Illinois, 1947-51; professor and department chairman, Tulane University, 1951-68; professor, University of Missouri, St. Louis, 1968-; visiting professor, University of Colorado,

1953, University of Michigan, 1966-67; Council, Southern Society for Philosophy and Psychology, 1953-56; Committee on Ethical Standards of Psychologists, American Psychological Association, 1953-55, Publications Board, 1954-57, Committee on Scientific and Professional Ethics and Conduct, 1966-69; American Board for Psychological Services, 1954-58; Louisiana State Board of Examiners of Psychologists, 1967-68; transfer of training paradigms in skill acquisition; repetition and transfer effects in short-term memory (verbal).

Herschel W. Leibowitz (experimental psychology), 1925; B.A., University of Pennsylvania, 1948; M.A., Columbia University, 1950, Ph.D., 1951; instructor to professor, University of Wisconsin, 1951-60; manager, behavioral sciences, IBM Corporation, 1960-62; professor, Pennsylvania State University, 1962-; Guggenheim fellow, 1957; Heinemann Stipend, 1967; von Humboldt Senior U.S. Scientist Award, 1976-77; lecturer, University of Maryland, 1960-62; visiting professor, University of Michigan, 1962, Massachusetts Institute of Technology, 1963, Florida State University, 1972; Psychobiology Review Panel, National Science Foundation, 1962-65; Committee on Vision, National Research Council, 1963-, Assembly of Behavioral and Social Sciences, 1972-77, Executive Council, 1973-; Board of Scientific Affairs, American Psychological Association, 1967-71, Scientific Awards Committee, 1972-74; Editorial Board, *Perception and Psychophysics*, 1969-; Experimental Psychology Study Section, National Institutes of Health, 1970-74; vision; perception; perceptual function in stress and psychopathology; physiological optics; perimetry; transportation safety.

Wilse B. Webb (psychology), 1920; B.A., Louisiana State University, 1941; M.A., State University of Iowa, 1942, Ph.D., 1947; assistant professor, University of Tennessee, 1947, Washington University, 1948-53; head, Aviation Psychology Laboratory, U.S. Naval School of Aviation Medicine, 1953-58; professor and department chairman, University of Florida, 1958-69, graduate research professor, 1969-; NIH fellow, 1965; NSF fellow, 1969; president, Southern Society for Philosophy and Psychology, 1960, Southeastern Psychological Association, 1967; chairman, Convention Committee, Policy and Planning Board, Education and Training Board, American Psychological Association, 1960-70, Board of Directors, 1968-70; sleep as a biological rhythm.

Section K-Social and Economic Sciences

Section Chairman-Elect (one to be elected for a 2-year term).

Bernard Berelson

David L. Sills

Bernard Berelson (population, behavioral sciences), 1912; A.B., Whitman College, 1934; B.S., University of Washington, 1936, M.A., 1937; Ph.D., University of Chicago, 1941; special analyst, Foreign Broadcast Intelligence Service, Federal Communication Commission 1941-44; research director, Bureau of Applied Social Research, Columbia University, 1944-46; assistant to associate professor, University of Chicago, 1946-48, professor, 1949-51, dean, Graduate Library School, 1947-51; director, Behavioral Sciences Program, Ford Foundation, 1951-57;

professor and director, Study of Graduate Education, University of Chicago, 1957-59; professor and director, Bureau of Applied Social Research, Columbia University, 1960-61; director, Communication Research Program, Population Council, 1962-63, vice president, 1963-68, president, 1968-74, senior fellow and president emeritus, 1974-; Rockefeller Foundation fellow, 1941; president, American Association for Public Opinion Research, 1951-52; Commission on Population and the American Future, 1970-72; Board, American Academy of Arts and Sciences; Committees on Population and Manpower, NAS; population policy; application of behavioral sciences to policy determination.

David L. Sills (sociology), 1920; B.A., Dartmouth College, 1942; M.A., Yale University, 1948; Ph.D., Columbia University, 1956; research analyst, Public Opinion and Sociological Research Division, Civil Information and Education Section, Occupation of Japan, 1947-50; research associate to director of research, Bureau of Applied Social Research, Columbia University, 1952-61; editor, *International Encyclopedia of the Social Sciences*, 1962-67; fellow, Center for Advanced Study in the Behavioral Sciences, 1967-68; associate director to director, Demographic Division, Population Council, 1968-72; visiting scholar, Russell Sage Foundation, 1973; executive associate, Social Science Research Council, 1973-; lecturer, Columbia University, 1959-61; expert, U.N. Technical Assistance Organization, Demographic Training and Research Center, India, 1960-61; member-at-large, Section Committee, AAAS Section on Social and Economic Sciences, 1975-78; environmental and energy policy making; organizational sociology; demography.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Nathan Keyfitz

Guy E. Swanson

Nathan Keyfitz (population mathematics, sociology), 1913; B.Sc., McGill University, 1934; Ph.D., University of Chicago, 1952; statistician to senior research statistician, Dominion Bureau of Statistics, Ottawa, 1936-59; professor, University of Toronto, 1959-63; professor and co-director, Population Research and Training Center, University of Chicago, 1963-68, department chairman, 1965-67; professor, University of California, Berkeley, 1968-72; Andelot professor of sociology and demography, Harvard University, 1972-; visiting professor, University of Montreal, 1962-63, Duke University, 1967; Gold Medal, Professional Institute of the Civil Service of Canada, 1957; American Academy of Arts and Sciences, 1971; Panel of Statistical Consultants, U.S. Bureau of the Census, 1957-65; Board of Directors, Social Science Research Council, and Committees on Urbanization and Linguistics, 1959-64; chairman, Sociology and Anthropology Chapter, Canadian Political Science Association, 1960-61, vice president, CPSA, 1962-63; chairman, Social Statistics Section, American Statistical Association, 1960-61; Social Security Administration Advisory Committee on Research and Development, 1964-65; vice president, Population Association of America, 1964-65, president, 1970; editor, *Demography*, 1965, *Theoretical Population Biology*, 1969-; Board of Trustees, National Opinion Research Council, 1966-; mathematics of population; kinship; population projection and forecasting.

Guy E. Swanson (sociology, social psychology), 1922; A.B., University of Pittsburgh, 1943, M.A., 1943; Ph.D., University of Chicago, 1948; instructor to professor, University of Michigan, 1948–69; professor, University of California, Berkeley, 1969–; fellow, Center for Advanced Study in the Behavioral Sciences, 1957; Guggenheim fellow, 1964; chairman, Social Psychological Section 4, American Sociological Association, 1961–62, and Section on Theoretical Sociology, 1969–70, Council, 1966–68; director, Social Science Research Council, 1961–64; vice president, AAAS, and chairman, Section on Social and Economic Sciences, 1968, Council, 1968–72, member-at-large, Section Committee, Section K, 1969–72; president, Sociological Research Association, 1975–76; general sociology, social change, social structure, and personality; sociology of culture.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Walter R. Gove
Zvi Griliches
Louisa P. Howe
Evelyn M. Kitagawa

Walter R. Gove (sociology), 1938; B.S., New York State University, 1960; M.A., University of Washington, 1967, Ph.D., 1968; assistant to associate professor, Vanderbilt University, 1968–75, professor, 1975–; advisory editor, *Social Forces*, 1971–74; consulting editor, *American Journal of Sociology*, 1974–76; associate editor, *Social Science Research*, 1974–76; mental illness; crime; sex roles; population density; methodology.

Zvi Griliches (economics), 1930; B.S., University of California, Berkeley, 1953, M.S., 1954; M.A., University of Chicago, 1955, Ph.D., 1957; assistant to associate professor, University of Chicago, 1956–64, professor, 1964–69; professor, Harvard University, 1969–; visiting professor, The Netherlands School of Economics, 1963–64, Hebrew University, 1963–64, 1972; Award of Merit, American Farm Economic Association, 1957, 1960, 1965; John Bates Clark Medal, American Economic Association, 1965; American Academy of Arts and Sciences, 1965; National Academy of Sciences, 1975; Price Statistics Committee, Federal Reserve Board, 1966–; Advisory Committee on Studies in Regulation of Economic Activity, Brookings Institution, 1967–; co-editor, *Econometrica*, 1968–; Census Advisory Committee, 1970–; Council, Econometric Society, 1970–, president, 1975; econometrics; economics of technical change; economics of education.

Louisa P. Howe (sociology), 1915; A.B., Radcliffe College, 1937, A.M., 1939, Ph.D., 1949; instructor, Skidmore College, and director, College-Community Center, 1939–41; tutor and teaching fellow, Radcliffe College, 1941–43; educational counselor, National Institute of Public Affairs, 1944–45; member, Research Department, Menninger Foundation, and faculty member, School of Psychiatry, 1947–49; assistant professor, University of Kansas, 1950–52; associate research sociologist, University of California School of Public Health, 1954–58; lecturer to assistant professor, Harvard School of Public Health, 1958–64; assistant professor to associate clinical professor, Harvard Medical School, 1964–; assistant sociologist to associate sociologist, Massachusetts General Hospital, 1959–66; research sociologist, Boston City Hospital, 1966–73; faculty member, Psychomotor

Institute, 1973–; Sigmund Freud Memorial fellow, Boston Institute of Psychoanalysis, 1941–44; postdoctoral research fellow, National Institute of Mental Health, 1949–50, 1952–54; consultant, NIMH, 1967–71; co-founder, Massachusetts Sociological Association, treasurer, 1968–69, president, 1969–70; Nominating Committee, Society for the Study of Social Problems, 1974; processes of ego development and of social (community) development; determinants of and treatment for addictive and other character disorders; methods of evaluating effectiveness of socio-psychotherapeutic interventions.

Evelyn M. Kitagawa (sociology), 1920; B.A., University of California, Berkeley, 1941; Ph.D., University of Chicago, 1951; instructor to associate professor, University of Chicago, 1949–70, professor, 1970–, research associate, Population Research Center, 1951–62, associate director, 1962–, department chairman, 1972–; Board of Directors, Population Association of America, 1960–63, Committee on Population Statistics, 1966–71, Nominating Committee, 1966–67, chairman, Publication Committee, 1973–74, president-elect, 1975–76; Committee on Small Area Statistics, American Statistical Association, 1962–68, Board of Directors, 1972–75; Committee on Government Statistics, American Sociological Association, 1966–71, Committee on Committees, 1971–73; Review Panel, Population Research Study Section, NIH, 1971–73; Board of Trustees, National Opinion Research Center, 1973–; Advisory Committee on Population Statistics, U.S. Bureau of the Census, 1975–78.

Section L-History and Philosophy of Science

Section Chairman-Elect (one to be elected for a 2-year term).

Robert S. Cohen
Arnold W. Thackray

Robert S. Cohen (theoretical physics, philosophy of science), 1918; B.A., Wesleyan University, 1943; M.S., Yale University, 1943, Ph.D., 1948; instructor, Yale University, 1943–44; scientific staff, Division of War Research, Columbia University, and Joint Communications Board, U.S. Joint Chiefs of Staff, 1944–46; NRC fellow, Yale University, 1946–48, ACLS postdoctoral fellow, 1948–49, instructor, 1949–51; assistant professor, Wesleyan University, 1951–57; associate professor of physics, Boston University, 1957–58, professor of physics and philosophy, 1958–, chairman, Department of Physics, 1958–73, and Center for Philosophy of Science, 1971–, acting dean, College of Liberal Arts, 1971–72; Ford Foundation fellow, Cambridge University, 1955–56; visiting professor, Brandeis University, 1959–60, University of California, San Diego, 1969; editor, *Boston Studies in the Philosophy of Science*; chairman, American Institute for Marxist Studies, 1964–; trustee, Wesleyan University, 1968–, chairman, Education Committee, 1973–; Council, AAAS, 1969–72, member-at-large, Section Committee, Section on History and Philosophy of Science, 1969–72; Governing Board, Philosophy of Science Association, 1971–74, vice president, 1974–76; chairman, U.S. National Committee, International Union of the History and Philosophy of Science, 1974–76; concept and theory formation in physical sciences; science and the social order; logical empiricism and natural science.

Arnold W. Thackray (history and philosophy

of science), 1939; B.Sc., University of Bristol, 1960; M.A., Canterbury University, 1965, Ph.D., 1966; M.A., University of Pennsylvania, 1971; research fellow, Churchill College, University of Cambridge, 1965–68; seminar organizer, Whipple Science Museum, 1965–67; visiting lecturer, Harvard University, 1967–68; assistant to associate professor, University of Pennsylvania, 1968–73, professor, 1973–, curator, Edgar Fahs Smith Memorial Collection in the History of Chemistry, 1969–, department chairman, 1970–; fellow, Center for Advanced Study in the Behavioral Sciences, 1973–74; visiting lecturer, Bryn Mawr College, 1968–; visiting professor, London School of Economics, 1971–72; Editorial Boards, *Historical Studies in the Physical Sciences*, 1968–, *History of Science*, 1972–; Pfizer Award Committee, History of Science Society, 1968–69, secretary, Ad Hoc Committee on *Isis*, 1970, member, Committee on *Isis*, 1970–73, chairman, 1972–73; Advisory Council, American Society for 18th Century Studies, 1970–; Advisory Council, Society for the History of Technology, 1972–, Executive Council, 1974–76; NSF History and Philosophy of Science Panel, 1972–74; member-at-large, Section Committee, AAAS Section on History and Philosophy of Science, 1974–77; Council, Society for Social Studies of Science, 1975–77.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Ruth S. Cowan
L. Pearce Williams

Ruth S. Cowan (history of science), 1941; A.B., Barnard College, 1961; M.A., University of California, Berkeley, 1964; Ph.D., Johns Hopkins University, 1969; instructor, Loyola College, 1965–66; supervisor, University College, Cambridge, England, 1966–67; instructor to assistant professor, State University of New York, Stony Brook, 1967–74, associate professor, 1974–; visiting assistant professor, Princeton University, 1972; NSF fellow, 1959–61; NDEA fellow, 1962–64; NIH fellow, 1966–67; Schumann Prize Committee, History of Science Society, 1970, Board, Metropolitan New York History of Science Society, 1971–, delegate, U.S. National Committee, International Union of the History and Philosophy of Science, 1973–, Committee on *Isis*, 1976–; Advisory Board, Society for the History of Technology, 1974–; Electorate Nominating Committee, AAAS Section on History and Philosophy of Science, 1974–75.

L. Pearce Williams (history of science), 1927; A.B., Cornell University, 1949, Ph.D., 1952; instructor, Yale University, 1952–56; associate historian, National Foundation for Infantile Paralysis, 1956–57; assistant professor, University of Delaware, 1956–59; assistant to associate professor, Cornell University, 1960–65, professor, 1965–, John Stambaugh Professor of History, 1971–, department chairman, 1969–75; Pfizer Award for *Michael Faraday, A Biography*, 1965; Clark Award for Distinguished Teaching, 1971; membre effectif, Académie Internationale d'Histoire des Sciences; Royal Institution of Great Britain.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Roger C. Buck
Keith Lehrer
Derek J. de Solla Price
Frederick Suppe

Roger C. Buck (history and philosophy of science), 1922; B.A., University of Minnesota, 1946; B.Ph., Oxford University, 1951; lecturer, University College of the Gold Coast, 1951-52; instructor, University of Chicago, 1952-53; assistant professor, Duke University, 1953-56; associate professor, Oberlin College, 1957-60; associate professor, Indiana University, 1960-65, professor, 1965-, department chairman, 1962-69, associate dean of faculties, 1970-75; NSF fellow, 1966-67; NSF Social Science Advisory Committee, 1970-72; chairman, Nominating Committee, Philosophy of Science Association, 1973; chairman, AAAS Section on History and Philosophy of Science, 1975.

Keith Lehrer (philosophy), 1936; B.A., University of Minnesota, 1957; A.M., Brown University, 1959, Ph.D., 1960; teaching assistant, Brown University, 1957-59; instructor to assistant professor, Wayne State University, 1960-63; assistant professor to professor, University of Rochester, 1963-73; professor, University of Arizona, 1974-; NSF fellow, 1966; ACLS fellow, 1973-74; fellow, Center for Advanced Study in the Behavioral Sciences, 1973-74; visiting associate professor, University of Calgary, 1966; visiting professor, Vanderbilt University, 1970; editor-in-chief, *Philosophical Studies*; Advisory Board, *Philosophical Forum*; Editorial Boards, *American Philosophical Quarterly*, *Grazer Philosophische Studien*; Executive Committee, Eastern Division, American Philosophical Association, 1969-72, Committee on Status and Future of the Profession, 1975; Fellowship Panel, National Endowment for the Humanities, 1974-77; Governing Board, Philosophy of Science Association, 1976-79; theories of individual and social rationality in science, especially those concerned with scientific consensus.

Derek J. de Solla Price (history of science, political science), 1922; B.S., University of London, 1942, Ph.D. in physics, 1946; Ph.D. in history of science, Cambridge University, 1954; M.A., Yale University, 1960; laboratory assistant, research assistant, lecturer, University of London, 1938-46; Commonwealth Fund fellow, Princeton University, 1946-47; lecturer, University of Malaya, 1947-50; consultant, Smithsonian Institution, 1957; Donaldson fellow, Institute for Advanced Study, 1958-59; professor to Avalon professor of the history of science, Yale University, 1960-, department chairman, 1960-64; Guggenheim fellow, 1969; Committee on Science and Public Policy, 1973-75; chairman, UNESCO Working Group on Science Policy, 1967-70; president, International Commission for Science Policy Studies, 1971-; history of science and technology; quantitative research on science policy studies.

Frederick Suppe (history and philosophy of science), 1940; A.B., University of California, Riverside, 1962; A.M., University of Michigan, 1964, Ph.D., 1967; teaching fellow to instructor, University of Michigan, 1963-67; assistant professor, University of Illinois, Urbana, 1967-73; associate professor of philosophy, University of Maryland, 1973-, chairperson, Committee (Graduate Program) on the History and Philosophy of Science, 1975-; visiting lecturer, University of California, Santa Barbara, 1964; visiting instructor, Indian Institute of Technology, Kanpur, 1965-67; educational advisor, USAID Mission to India, 1965-67; NSF fellow, 1965; University Research Board Award, University of Maryland, 1976; chairman, Program Committee for 1976 Biennial Meetings, Philosophy of Sci-

ence Association; Organizing Committee, National Workshop on the Teaching of Philosophy, 1976; foundational issues in science and its ability to provide knowledge; history of the philosophy of science, with particular emphasis on how science and philosophy have interacted in their respective developments.

Section M-Engineering

Council Delegate (one to be elected for a 2-year term).

Frederic A. L. Holloway
J. H. Mulligan, Jr.

Frederic A. L. Holloway (chemical engineering), 1914; B.S., Georgia Institute of Technology, 1935; Sc.D., Massachusetts Institute of Technology, 1939; instructor, Massachusetts Institute of Technology, 1938-39; engineer and technical administrator, Exxon Company USA, 1939-53, refinery superintendent and assistant general manager, 1953-55, assistant general manager, manufacturing, and vice president, manufacturing planning, 1956-62, deputy coordinator, refining, Exxon Corporation, 1962-64, president and director, Exxon Research and Engineering Company, 1964-68, coordinator and vice president, corporate planning, Exxon Corporation, 1968-73, vice president, science and technology, 1973-; Committee on Public Engineering Policy, National Academy of Engineering, 1965-69, Committee on Environmental Engineering, 1969-75, Council, 1971-, Executive Committee, 1973-75; National Research Council Governing Board, 1973-; energy supply and conservation; environmental improvement requirements and methods.

J. H. Mulligan, Jr. (electrical engineering), 1920; B.E.E., Cooper Union School of Engineering, 1943, E.E., 1947; M.S., Stevens Institute of Technology, 1945; Ph.D., Columbia University, 1948; technical staff member, Bell Telephone Laboratories, Inc., 1941-44; senior engineer, Allen B. DuMont Laboratories, Inc., 1945-47, chief engineer, Transmitter Division, 1948-49; assistant professor to professor, New York University, 1949-68, department chairman, 1952-68; secretary and executive officer, National Academy of Engineering, 1968-74; professor and dean, School of Engineering, University of California, Irvine, 1974-; president, Institute of Electrical and Electronics Engineers, 1971; Board of Directors and Executive Committee, Engineers' Council for Professional Development, chairman, Engineering Education and Accreditation Committee; chairman of numerous AIEE/IRE and IEEE committees; currently, secretary, National Academy of Engineering; network theory; feedback systems; electromagnetic theory; applied mathematics in electrical engineering; solid state electronics.

Section Chairman-Elect (one to be elected for a 2-year term).

Robert B. Beckmann
B. R. Teare, Jr.

Robert B. Beckmann (chemical engineering, engineering education), 1918; B.S., University of Illinois, 1940; Ph.D., University of Wisconsin, 1944; instructor, University of Wisconsin, 1943-44; research chemical engineer, Humble Oil & Refining Company, 1944-46; assistant professor to professor, Carnegie Institute of Technology, 1946-61; professor, University of Maryland, 1961-, department head, 1961-66, dean, College of Engineering,

1966-; president, Associated Chemical Engineers, 1955-61; chairman, Industrial and Engineering Chemistry Division, American Chemical Society, 1966, Awards Committee; Hazardous Materials Committee, NRC, 1971-76, chairman, 1972-76; Education and Accreditation Committee and W. K. Lewis Award Committee, American Institute of Chemical Engineers; Engineering Council Administrative Council and Government Relations Committee, American Society for Engineering Education; Board of Directors, Versar, Inc.; president and member, Board of Directors, Engineers' Council for Professional Development; chairman, Engineering Sciences Award Committee, Washington Academy of Sciences; liquid-liquid extractions, heat-mass-momentum transfer, and power requirements in agitated vessels; kinetics and catalysis; physical and chemisorption; process engineering and design.

B. R. Teare, Jr. (electrical engineering), 1907; B.S., University of Wisconsin, 1927, M.S., 1928; D.E., Yale University, 1937; member, General Engineering Department, General Electric Company, 1929-33; instructor to assistant professor, Yale University, 1933-39; professor, Carnegie-Mellon University, 1939-, Buhl professor, 1943-54, department head, 1944-52, dean, Graduate Studies, 1950-53, associate dean, College of Engineering and Science, 1950-53, dean, 1953-66, university professor of engineering, 1966-, emeritus, 1975-; George Westinghouse Award, ASEE, 1947, Lamme Medal, 1963; Education Medal, IEEE, 1964; president, American Society for Engineering Education, 1959-60, American Institute of Electrical Engineers, 1962, Institute of Electrical and Electronics Engineers, 1962; trustee, Middle States Association of Colleges and Universities, 1968-74; Board of Directors, Commission on Engineering Education, vice chairman; Education and Accreditation Committee, Engineers' Council for Professional Development, chairman, Region III; Board of Directors, Educational Projects, Inc., chairman, 1975; hysteresis motors; copper-covered steel conductors at high frequencies; electrical studies of living tissues and skin effect in bimetallic conductors.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Nathaniel B. Cohen
Lawrence J. Giacoletto

Nathaniel B. Cohen (aeronautical engineering), 1928; B.Aero.E., Polytechnic Institute of Brooklyn, 1950; M.Aero.E., University of Virginia, 1956; aeronautical research engineer, Langley Research Center, NACA/NASA, 1952-56, 1957-62; senior scientist, Avco Corporation, 1956-57; program manager, Apollo and Advanced Manned Missions Program, NASA, 1962-64, program analyst and technical assistant, Advanced Research and Technology Program, 1964-68, policy analyst and director of policy research, Office of Policy, 1968-71, director, Office of Policy Analysis, 1971-, executive secretary, Space Program Advisory Council, 1974-; reentry gas dynamics, convective and radiative heat transfer; research on alternative futures—socioeconomic, environmental, technological; impact of science and technology on society.

Lawrence J. Giacoletto (electronic engineering), 1916; B.S., Rose-Hulman Institute of Technology, 1938; M.A., State University of Iowa, 1939; Ph.D., University of Michigan, 1952; research engineer, RCA Laboratories, 1946-56; manager, Electronics Department,

Ford Motor Company Scientific Laboratory, 1956-60; professor, Michigan State University, 1960-; RCA Laboratories Research Award, 1950, 1953; Board of Directors, Institute of Electrical and Electronics Engineers, Tenna Corporation, Thomas and Skinner, Inc.; Board of Trustees, National Electronics Conference; analysis, design, and applications of solid-state devices; electrical properties of materials; energy storage and conversion; electric automobiles.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Carl C. Chambers
Thomas C. Kavanagh
Hans Mark
Eric A. Walker

Carl C. Chambers (electrical engineering), 1907; B.S., Dickinson College, 1929; Sc.D., University of Pennsylvania, 1934; engineer, RCA, 1929-32; special fellow, Bartol Research Foundation, 1932-33; instructor to associate professor, University of Pennsylvania, 1933-47, professor, 1947-75, emeritus professor, 1975-, dean, Moore School, 1949-53, vice president for engineering, 1953-72; Engineer of the Year, Delaware Valley, 1966; National Academy of Engineering, 1970; director, IRE, 1942; president, American Society for Engineering Education, 1968; electronics; international standards; organization for interdisciplinary research.

Thomas C. Kavanagh (civil and structural engineering), 1912; B.S., City College of New York, 1932, M.C.E., 1933; M.B.A., New York University, 1942, Sc.D., 1948; structural designer, F. R. Harris, Inc., 1942-43, Fairchild Aircraft, 1943-44, M. W. Kellogg Company, 1944-45; instructor to assistant professor, New York University, 1945-48; professor, Pennsylvania State University, 1949-52; consulting engineer and senior vice president, Madigan-Praeger, Inc., 1952-74; vice president, Louis Berger International, Inc., 1974-; Gold Medal, Architectural League of New York, 1954; David B. Steinman Award, New York Academy of Sciences, 1957; Ernest Howard Award in Structural Engineering, American Society of Civil Engineers, 1969; First Steinman Medal in Engineering, City University of New York, 1970; Distinguished Alumnus Award, Polytechnic Institute of New York, 1975; founding member, National Academy of Engineering, treasurer, 1965-75; governor and vice president, New York Academy of Sciences; vice president, Engineers' Joint Council; urban planning and engineering; systems engineering and construction management; urban freeway design; value engineering; offshore technology.

Hans Mark (physics), 1929; A.B., University of California, Berkeley, 1951; Ph.D., Massachusetts Institute of Technology, 1954; acting head, Neutron Physics Group, Laboratory for Nuclear Science, MIT, 1954-55; research physicist, University of California, Berkeley, 1955-56, Lawrence Radiation Laboratory, 1956-58; assistant professor, MIT, 1958-60; lecturer to professor of nuclear engineering, University of California, Berkeley, 1960-69, department chairman and administrator, Berkeley Research Reactor, 1964-69, physicist, Lawrence Radiation Laboratory, 1960-69, leader, Experimental Physics Division, 1960-64; director, NASA Ames Research Center, 1969-; consulting professor of engineering, Stanford University, 1973-; associate advisor, USAF Scientific Advisory

Board, 1969-; former director, Nuclear Education Division, American Society for Engineering Education; former chairman, Awards Committee, Education Division, American Nuclear Society; NAS Committee on Atomic and Molecular Physics; nuclear and atomic physics; nuclear instrumentation; atomic fluorescence phenomena; astrophysics; x-ray astronomy.

Eric A. Walker (engineering), 1910; B.S., Harvard University, 1932, S.M., 1933, Sc.D., 1935; instructor to assistant professor, Tufts College, 1934-39, department chairman, 1939-40; associate professor and department head, University of Connecticut, 1940-42; associate director, Underwater Sound Laboratory, Harvard University, 1942-45; professor and department head, Pennsylvania State University, 1945-51, director, Ordnance Research Laboratory, 1945-52, dean, College of Engineering and Architecture, 1951-56, vice president, 1956, president, 1956-70; vice president, Science and Technology, Aluminum Company of America, 1970-75; professor and president emeritus, Pennsylvania State University, 1975-; Lamme Award, American Society for Engineering Education, president, 1961-62; Horatio Alger Award; Tasker E. Bliss Award, American Society of Military Engineers, 1959; president, Engineers' Joint Council, 1962-63, National Academy of Engineering, 1966-70; chairman of the Board, National Science Foundation, 1964-66; research administration.

Section N-Medical Sciences

Council Delegates (two to be elected for 2-year terms).

Robert M. Bird
A. McGehee Harvey
Marjorie G. Horning
Charles D. Proctor

Robert M. Bird (medicine), 1915; B.S., University of Virginia, 1937, M.D., 1939; research associate to assistant professor, Department of Physiology, Cornell University Medical College, 1946-50, instructor, Department of Medicine, 1947-52; associate professor to professor, University of Oklahoma, 1952-74, vice chairman of department, 1961-65, acting head, 1963-64, associate dean, Planning and Development, College of Medicine, 1965-70, dean, College of Medicine, 1970-74; director, Lister Hill National Center for Biomedical Communications, National Library of Medicine, 1974-; Regents Award for Superior Teaching, University of Oklahoma, 1969; Construction Schools of Medicine Review Committee, Bureau of Health Professions Educational Manpower Training, Department of Health, Education, and Welfare, 1967-70; governor for Oklahoma, American College of Physicians, 1970-74, vice chairman, Board of Governors, 1973-74; associate editor, *Journal of Laboratory and Clinical Medicine*, 1974; erythrocyte and leukocyte metabolism; blood coagulation; clinical hematology.

A. McGehee Harvey (medicine), 1911; A.B., Washington and Lee University, 1930; M.D., Johns Hopkins University, 1934; fellow, National Institute for Medical Research, London, 1937-39, Johnson Foundation for Biophysics, University of Pennsylvania, 1939-40; resident, Johns Hopkins Hospital, 1940-41; assistant professor, Vanderbilt University Medical School, 1941-42; physician-in-chief, Johns Hopkins Hospital, 1946-73, emeritus, 1973-, professor, Johns Hopkins University,

1946-; master, American College of Physicians, 1973; 1st Distinguished Achievement Award, Maryland Society of Internal Medicine, 1974; Williams Award, Association of Professors of Medicine, 1975, president, 1964; fellow, American Academy of Arts and Sciences, 1975; president, American Society for Clinical Investigation, 1956, Association of American Physicians, 1968, American Clinical and Climatological Association, 1971, American Osler Society, 1975-76; chairman, Allergy and Immunology Study Section, NIH, 1956-60, National Cancer Council, 1960-64; Committee of Judges, Theobald Smith Award in the Medical Sciences, AAAS, 1957; editor-in-chief, *Medicine*, 1959-; editor, *Johns Hopkins Medical Journal*, 1974-75, chairman, Editorial Board, 1975-; physiology and pharmacology of the neuromuscular system in animals and man; diseases of neuromuscular transmission in man; diseases of man with immunological features.

Marjorie G. Horning (biochemistry), 1917; B.A., Goucher College, 1938; M.S., University of Michigan, 1940, Ph.D., 1943; research chemist, National Heart Institute, 1951-61; research associate professor to associate professor, Baylor University College of Medicine, 1961-69, professor, Department of Biochemistry and Institute for Lipid Research, 1969-; Dean Van Meter fellow, University of Michigan, 1942-43; Pharmacology-Toxicology Program Project Committee, NIH, 1972-; Editorial Boards, *Drug Metabolism and Disposition*, 1972- and *Toxicology and Applied Pharmacology*, 1975-; councilor, Southeastern Texas Section, American Chemical Society, 1974-; Advisory Board, *Analytical Chemistry*, 1975-; analytical biochemistry; analytical pharmacology; application of techniques of gas chromatography and gas chromatography-mass spectrometry to biomedical problems.

Charles D. Proctor (pharmacology, toxicology); B.A., Fisk University, 1943, M.A., 1946; Ph.D., Loyola University of Chicago, 1950; senior toxicologist, Cook County, Illinois, 1946-50; instructor, Stritch School of Medicine, Loyola University of Chicago, 1950-53, assistant to associate professor, Stritch School of Medicine and the Graduate School, 1953-62; director, Laboratory for Chemical Pharmacology, McCrone Research Institute, 1962-64; professor and director, Gillette Memorial Laboratory, Meharry Medical College, 1964-, chairman, Department of Pharmacology, 1968-; Phi Delta Kappa Award for Excellence in Teaching, 1958; Frontiers of America Award, 1959; Psychiatry Award for Excellence in Preceptorship of Research, 1966; Student American Medical Association Award for Excellence in Medical Teaching, 1966; chairman, Chemistry Section, Illinois Academy of Science, 1956; editorial reviewer, *Toxicology and Applied Pharmacology*, Society of Toxicology, 1970-; mechanism of action for the major tranquilizers, including investigation of a possible biological basis for schizophrenic reaction; mechanism of action of amphetamine; process of drug addiction.

Section Chairman-Elect (one to be elected for a 2-year term).

Leon O. Jacobson
Louis W. Sullivan

Leon O. Jacobson (internal medicine, hematology), 1911; B.S., North Dakota State University, 1935; M.D., University of Chicago, 1939; instructor to professor, University of

Chicago, 1945–65, Joseph Regenstein professor of biological and medical sciences, 1965–, associate dean, Division of the Biological Sciences, 1945–51, head, Hematology Section, 1951–61, department chairman, 1961–65, dean, Division of Biological Sciences and the Pritzker School of Medicine, 1966–75, director, Argonne Cancer Research Hospital, 1951–67, Franklin McLean Memorial Research Institute, 1974, and Pritzker School of Medicine, 1975–; Janeway Medal, American Radiation Society, 1953; Robert Roesler de Villers Award, Leukemia Society, 1956; Bordon Award, Association of American Medical Colleges, 1962; Modern Medicine Award, 1963; National Academy of Sciences, 1965; fellow, American Academy of Arts and Sciences, 1967; master, American College of Physicians, 1968, John Phillips Memorial Award, 1975; president, Chicago Pathological Society, 1955–56, Chicago Society of Internal Medicine, 1964–65; Expert Advisory Panel on Radiation, World Health Organization, 1960–65, 1976–; Erythropoietin Committee, National Heart Institute, 1963–67; Board of Scientific Counselors, National Cancer Institute, 1963–67; Space Biology Advisory Subcommittee, Space Science and Applications Steering Committee, NASA, 1968–70; director-at-large, Board of Directors, Alpha Omega Alpha Honor Medical Society, 1967–; chairman, AAAS Section on Medical Sciences, 1970, Council, 1970; chairman, Section on Medical Sciences, NAS, 1974–, member, Committee on Science and Public Policy, 1976–; control of red cell formation.

Louis W. Sullivan (internal medicine), 1933; B.S., Morehouse College, 1954; M.D., Boston University, 1958; research fellow, Thorndike Memorial Laboratory, Boston City Hospital, and Harvard Medical School, 1961–63; instructor, Harvard Medical School, 1963–64; assistant professor, New Jersey College of Medicine, 1964–66; assistant to associate professor of medicine, Boston University School of Medicine, 1966–74, associate professor of physiology, 1970–74, professor of medicine and physiology, 1974–75, professor of nutrition, School of Dentistry, 1974–75; project co-director to director, Boston Sickle Cell Center, 1972–75; director of hematology, Boston City Hospital, 1973–75; professor of biology and medicine, dean and director, Medical Education Program, Morehouse College, 1975–; secretary-treasurer, Society for the Study of Blood, 1965–66; Medical Advisory Board, National Leukemia Association, 1968–70, chairman, 1970; associate editor, *Nutrition Reports International*, 1969–73; Training Committee, American Society of Hematology, 1969–71; Sickle Cell Anemia Advisory Committee, National Institutes of Health, 1971–77; Ad Hoc Panel on Blood Diseases, National Heart, Lung and Blood Disease Bureau, 1972–73; Blood Diseases and Blood Resources Advisory Committee, National Heart and Lung Institute, 1974–; Board, Masters of Community Health Program, Emory University Medical School, 1975–; chairman, Board, University Center Comprehensive Health Program, 1975–; nutritional anemias (vitamin B12 and Folate deficiencies); minimal daily requirements of vitamin B12 and folic acid and factors influencing their requirements; effects of alcohol and other agents on hematopoiesis.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Rose Dagirmanjian
Steven M. Horvath

Rose Dagirmanjian (pharmacology), 1930; B.A., Clark University, 1952; M.S., University of Rochester, 1954, Ph.D., 1960; research associate, University of Rochester, 1954–60; Riker international postdoctoral fellow, England, 1960–62; assistant professor, Ohio State University, 1963–69; associate professor, University of Louisville, 1969–75, professor, 1975–; Toxicology Study Section, NIH, 1972–76; treasurer, University of Louisville Chapter, American Association of University Professors, 1973–75, vice president, 1976; Miscellaneous External Over-the-Counter Preparation Panel, Food and Drug Administration, 1975; role of magnesium in the functioning of the central nervous system and autonomic nervous system; effects of pharmacological agents, including the tetrahydrocannabinols and other psychotropic drugs, on biogenic amines in the central nervous system; toxicology of heavy metals as related to central autonomic functions.

Steven M. Horvath (physiology, biomedical engineering), 1911; B.A., Miami University, 1934, M.S., 1935; Ph.D., Harvard University, 1942; teaching assistant, Ohio State University, 1935–37; instructor, Miami University, 1937–39; research assistant, Harvard University, 1939–42; director of physiological research, Metropolitan State Hospital for the Insane, 1939–42; executive officer, Armored Medical Research Laboratory, 1945–46; assistant to associate professor, University of Pennsylvania, 1946–49; associate professor to professor, State University of Iowa, 1949–58, associate director, Cardiovascular Laboratories, 1949–58; head, Physiology Department, Division of Research, Lankenau Hospital, 1958–61; professor and director, Institute of Environmental Stress, University of California, Santa Barbara, 1961–; visiting professor, University of Copenhagen, 1958–59, Jefferson Medical College, 1959–; visiting professor to colleges, American Physiological Society, 1962–; chairman, Applied Physiology Study Section, NIH; Committees on Biophysics of Clothing (chairman), on Environmental Physiology, and on Sanitary Engineering and Environment, NRC; Committee on Aging, National Social Welfare Assembly; Committee on Environmental Medicine, Surgeon General of the Army; Editorial Boards, *American Journal of Physiology*, *Journal of Applied Physiology*, and *Science and Medicine in Sports*; circulation (coronary and hepatic); exercise physiology; respiration; biomedical engineering; temperature regulation; endocrinology; cardiology; obstructive lung diseases; radioisotopes.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Mark D. Altschule
Monique C. Braude
Julius H. Comroe, Jr.
Seymour S. Kety

Mark D. Altschule (internal medicine), 1906; B.S., College of the City of New York, 1927; M.D., Harvard University, 1933; research fellow, Harvard University, 1934–35, assistant to associate in medicine, 1935–46, instructor to assistant professor, 1940–52, assistant clinical professor to clinical professor, 1952–73, visiting professor, 1973–; attending physician, Veterans Administration Hospital, 1953–; associate in medicine, Beth Israel Hospital, 1966–; consultant, McLean Hospital, 1968–, Naval Blood Research Laboratory, 1968–, Yale-New Haven Hospital, 1970–; lec-

turer, Yale University School of Medicine, 1966–; editor-in-chief, *Medical Counterpoint*, 1969–73; Scientific Advisory Board, American Schizophrenia Foundation; trustee, Boylston Medical Society; physiology of stress phenomena in clinical conditions.

Monique C. Braude (pharmacology, toxicology), 1925; Pharmacist Diploma, University of Paris, 1948; M.S., Ohio State University, 1956; Ph.D., University of Maryland, 1963; industrial pharmacist and laboratory supervisor, Laboratories Blaque, Paris, 1950–53; pharmacist, New Jersey and Maryland, 1955–59; NIH research fellow, University of Maryland, 1959–62, research associate, Psychiatric Institute, 1962–65, research assistant professor, 1965–70; pharmacologist, Food and Drug Administration, 1966–69; chief, Biomedical Section, Center for Studies of Narcotics and Drug Abuse, NIMH, 1970–74; acting chief, Preclinical Pharmacology, Biomedical Branch, Division of Research, National Institute on Drug Abuse, 1974–; Committee on Non-Psychiatric Use of Drugs, American Society for Pharmacology and Experimental Therapeutics, 1974–; DHEW Committee to Coordinate Toxicology and Related Programs, 1975–; central nervous system and psychopharmacology; toxicology and developmental pharmacology; evaluation of CNS drugs, drugs of abuse, and opiate replacement compounds.

Julius H. Comroe, Jr. (physiology), 1911; A.B., University of Pennsylvania, 1931, M.D., 1934; instructor to assistant professor, University of Pennsylvania School of Medicine, 1936–46, professor and department chairman, Graduate School of Medicine, 1946–57; professor of physiology, University of California, San Francisco, 1957–, director, Cardiovascular Research Institute, 1957–73, Morris Herzstein professor of biology, 1974–; Medal of the American College of Chest Physicians, 1970; Ralph M. Waters Award in Anesthesiology, 1971; Mayo Soley Award, Western Society for Clinical Research, 1971; Carl J. Wiggers Award, American Physiological Society, Circulation Group, 1974; Trudeau Medal, American Lung Association, 1974; Gold Heart Award, American Heart Association, 1975; Kovalenko Medal, NAS, 1976; president, American Physiological Society, 1960–61; National Academy of Sciences, 1961, Board on Medicine, 1967–70, Executive Committee, Institute of Medicine, 1970; American Academy of Arts and Sciences, 1964; vice president, AAAS, and chairman, Section on Medical Sciences, 1967, Council, 1967; chairman, Commission on Medical Physiology, International Union of Physiological Sciences, 1969–73; President's Panel on Heart Disease, 1972; associate editor, *American Review of Respiratory Diseases*, 1973–; editor, *Annual Review of Physiology*, 1971–75; carotid and aortic bodies; autonomic drugs; regulation of respiration circulation; pulmonary function; neuromuscular transmission.

Seymour S. Kety (physiology, psychobiology), 1915; A.B., University of Pennsylvania, 1926, M.D., 1940; instructor, University of Pennsylvania School of Medicine, 1943–44, associate, 1944–46, assistant professor to professor, 1946–51; scientific director, National Institute of Mental Health and National Institute of Neurological Diseases and Blindness, 1951–56, chief, Laboratory of Clinical Science, NIMH, 1956–67; professor of psychiatry, Harvard Medical School, and director, Psychiatric Research Laboratories, Massachusetts General Hospital, 1967–; Theobald

Smith Award, AAAS, 1949; Distinguished Service Award, DHEW, 1958; Dean Award, American College of Psychiatry, 1962; Kovalenko Award, NAS; McAlpin Award, National Association for Mental Health; Intra-Science Research Foundation Award, 1975; Menninger Award, American College of Physicians; National Academy of Sciences; American Academy of Arts and Sciences; president, Association for Research in Nervous and Mental Disease, 1965, American Psychopathology Association, 1965; chairman, Biosciences Advisory Committee, NASA, 1959–60; President's Panel on Mental Retardation, 1961–62; Board of Directors, Foundations Fund for Research in Psychiatry, 1962–65; associate, Neurosciences Research Foundation, 1962–; Committee on Public Understanding of Science, AAAS, 1967–71, Editorial Board, *Science*, 1973–74; lead citrate complex and therapy of lead poisoning; cerebral circulation and metabolism; biogenic amines and behavior; theory of capillary tissue exchange; biological aspects of mental disorders.

Section O—Agriculture

Section Chairman-Elect (one to be elected for a 2-year term).

James B. Kendrick, Jr.
Coyt T. Wilson

James B. Kendrick, Jr. (plant pathology), 1920; B.A., University of California, Berkeley, 1942; Ph.D., University of Wisconsin, 1947; junior plant pathologist to associate plant pathologist, University of California, Riverside, 1947–61, professor, 1961–68, department chairman, 1963–68; vice president, Agricultural Sciences, University of California, Berkeley, 1968–, director, Agricultural Experiment Station, 1973–, director, Cooperative Extension, 1975–; NSF fellow, 1961–62; Governing Council, International Society of Plant Pathology, 1968–74; chairman, Council of Administrative Heads of Agriculture, Division of Agriculture, National Association of State Universities and Land-Grant Colleges, 1972, chairman, Division of Agriculture, 1973, member, Executive Committee, 1974–76; Electorate Nominating Committee, AAAS Section on Agriculture, 1974–75; Governing Board, Agricultural Research Institute, 1974–76; Agricultural Research Policy Advisory Committee, 1974–75; chairman, Western Association of Agricultural Experiment Station Directors, 1975; chemical treatment of plant diseases; air pollution damage to plants; nature and control of root diseases of vegetable crops.

Coyt T. Wilson (plant pathology), 1913; B.S., Alabama Polytechnic Institute, 1938, M.S., 1941; Ph.D., University of Minnesota, 1946; instructor, Alabama Polytechnic Institute, 1940–41, University of Minnesota, 1941–44; assistant plant pathologist, Agricultural Experiment Station, Alabama Polytechnic Institute, 1944–47, professor and plant pathologist, 1947–51, assistant dean, School of Agriculture, and associate director, Agricultural Experiment Station, 1951–64; associate director, Agricultural Experiment Station, Virginia Polytechnic Institute and State University, 1964–65, director, 1965–, associate dean, Research Division, 1966–71, executive associate dean, 1971–; USAID consultant, Ministries of Agriculture, Iran, 1960, Turkey, 1966, Bangladesh; USDA-State Agricultural Experiment

Stations Joint Committee on Long-Range Study of Agricultural Research, 1965–66; Board of Directors, Auburn Research Foundation; Agricultural Research Policy Advisory Committee; Senate, National Association of State Universities and Land-Grant Colleges; Governing Board, Agricultural Research Institute; Virginia Soil and Water Conservation Committee; Virginia Resources Council; member-at-large, Section Committee, AAAS Section on Agriculture, 1974–77.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Martin A. Massengale
Robert O. Nesheim

Martin A. Massengale (agronomy), 1933; B.S., Western Kentucky University, 1952; M.S., University of Wisconsin, 1954, Ph.D., 1956; research assistant, University of Wisconsin, 1952–56; assistant to associate professor and assistant to associate agronomist, University of Arizona, 1958–65, professor and agronomist, 1965–74, department head, 1966–74, associate dean, College of Agriculture, and associate director, Agricultural Experiment Station, 1974–76; vice chancellor, University of Nebraska, 1976–; Outstanding Educators of America Award, 1970; Appreciation Award for Contributions to Seed Industry, Pacific Seedsman Association, 1971; past president, American Society of Agronomy, Crop Science Society of America, and Western Society of Crop Science; director, Arizona Crop Improvement Association; consultant, University of Ceara, Brazil, 1969, Minister of Agriculture and Water, Saudi Arabia, 1974; National Coordinating Committee for Cotton Research; forage crops physiology; production and management.

Robert O. Nesheim (animal nutrition), 1921; B.S., University of Illinois, 1943, M.S., 1950, Ph.D., 1951; farm management consultant, Halderman Farm Management Service, 1946–48; swine research specialist, General Mills, 1951–52; manager, swine feed research, Quaker Oats Company, 1952–59, livestock feed research, 1959–64, associate director of research, feed and pet foods, 1967–69, director, research and development, 1969–70, vice president, 1970–; head, Animal Science Department, University of Illinois, 1964–67; U.S. National Committee, International Union of Nutritional Sciences, NAS, 1968–74; Advisory Council, Society for Nutrition Education, 1970–73; Food and Nutrition Board, NAS, 1972–, Executive Committee, 1973–, Committee on Food Science and Technology, 1973–; Food Advisory Committee, Office of Technology Assessment, 1974–; treasurer, Federation of American Societies for Experimental Biology, 1974; vice chairman, Food Industries Advisory Panel, American Medical Association, 1974–; amino acid nutrition; energy utilization.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Ralph J. McCracken
Jackson A. Rigney
Noland L. VanDemark
H. L. Wilcke

Ralph J. McCracken (soil science), 1921; A.B., Earlham College, 1942; M.S., Cornell University, 1951; Ph.D., Iowa State University, 1956; soil scientist, USDA, 1947–49, 1951–55; associate agronomist, University of Ten-

nessee, 1954–56; associate professor to professor, North Carolina State University, 1956–73, department head, 1964–70, assistant to associate director, Agricultural Experiment Station, 1970–73; associate administrator, Agricultural Research Service, USDA, 1973–; past president, Soil Science Society of America; genesis, classification, and mineralogy of soils.

Jackson A. Rigney (statistics, plant breeding), 1913; B.S., New Mexico A & M University, 1934; M.S., Iowa State University, 1936; assistant agronomist, West Virginia University, 1936–38; assistant to associate professor of agronomy, North Carolina State University, 1938–45, professor of experimental statistics, 1945–49, department head, 1949–62, director, State College Section, Institute of Statistics, 1954–62, director, North Carolina Agricultural Mission to Peru, 1963–66, overseas research, Rural Development Research Project, 1966–67, dean, International Programs, 1968–, acting chancellor, 1975; Official Order of Merit, President of Peru, 1959; Outstanding Alumnus Award, New Mexico State University, 1974; Board of Directors, International Potato Center, Lima, Peru, 1971–, secretary, 1972–; adviser, Executive Board, Asian Association of Agricultural Colleges and Universities, 1972–; breeding field crops; experimental and sampling designs for plant sciences; international development.

Noland L. VanDemark (physiology), 1919; B.S., Ohio State University, 1941, M.S., 1942; Ph.D., Cornell University, 1948; assistant in animal husbandry, Ohio State University, 1941–42; vitamin chemist, Ohio Department of Agriculture, 1942; assistant, Cornell University, 1942–44, 1948; livestock specialist, U.S. Allied Commission, Austria, 1946–47; assistant professor to professor, University of Illinois, 1948–64; professor of dairy science and department chairman, Ohio State University and Ohio Agricultural Research and Development Center, 1964–73; director of research, New York State College of Agriculture and Life Sciences, and director, Cornell University Agricultural Experiment Station, 1974–; Borden Award, 1959; Gold Medal, Italian Government, 1964; Ivanov Centennial Medal (Russia), 1975; president, Society for the Study of Reproduction, 1969–70, director, 1970–71; chairman, Production Section, American Dairy Science Association, 1969–70, director, 1971–74; physiology and biochemistry of reproductive processes in cattle.

H. L. Wilcke (poultry husbandry), 1906; B.S., Iowa State College, 1927, M.A., 1932, Ph.D., 1935; poultry specialist, Meridian Grain & Elevator Company, 1927–29; assistant, Iowa State College, 1929–31, assistant to associate professor, 1931–36, professor and department head, 1936–46; manager, General Poultry and Hatchery Department, Ralston Purina Company, 1946–48, assistant director of research, 1948–61, vice president and director of research, 1961–; Agricultural Board, NAS-NRC, president, Agricultural Research Institute, 1966–67; vitamins A, D, and E; proteins; calcium; phosphorus; cereal grains; egg quality; human palatability.

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with ballot.**

Section P—Industrial Science

Section Chairman-Elect (one to be elected for a 2-year term).

J. Kenneth Craver
David B. Hertz

J. Kenneth Craver (chemistry, technological forecasting), 1915; B.Ed., Southern Illinois University, 1937; M.S., Syracuse University, 1938; numerous positions in research and development with Monsanto Company; presently, manager, Futures Research, Corporate Plans Department, Monsanto; numerous patents; chairman, Division of Organic Coatings and Plastics, American Chemical Society, 1957–58, Division of Chemical Marketing and Economics, 1974–75; president, Commercial Chemical Development Association, 1964–65; chairman, Chemistry-Physics of Coatings, Gordon Research Conferences, 1966; founding chairman, Chemistry-Physics of Paper, Gordon Research Conferences, 1966; trustee, The Institute for the Future; technological forecasting; long-range planning.

David B. Hertz (management sciences), 1919; B.A., Columbia University, 1939, B.S., 1940, Ph.D., 1949; M.S., U.S. Navy Postgraduate School, 1944; assistant chief development engineer, Celanese Corporation, 1945–49, director of engineering, 1953–54; assistant to associate professor, Columbia University, 1949–53; assistant to the president, Popular Merchandise Company, 1954–55; president, David B. Hertz Company, 1955–57; principal, Arthur Andersen & Company, 1957–62; director, McKinsey & Company, Inc., 1962–; adjunct professor, Columbia University Graduate School of Business; visiting professor, London University Graduate School of Business Studies; president, Institute of Management Sciences, 1963–64; Council, Operations Research Society of America, 1964–67, president, 1974–75; Secretary of the Navy's Shipbuilding Study Group, 1965; NAS Advisory Committee on Behavioral Science Research, Department of Defense, 1970–71; chairman, Columbia Engineering Council, 1974; trustee, Columbia University Press; president-elect, International Federation of Operational Research Societies; chairman, Evaluation Panel, Institute for Applied Technology, National Bureau of Standards; management science; operations research; systems analysis; health care delivery.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Seth Bonder
J. Kenneth Craver

Seth Bonder (operations research, management sciences), 1932; B.S., University of Maryland, 1960; Ph.D., Ohio State University, 1965; project supervisor and principal investigator, Systems Research Group, Ohio State University, 1962–65; assistant to associate professor, University of Michigan, 1965–72, adjunct associate professor of industrial and operations engineering, 1973–, director, Systems Research Laboratory, 1967–71; president, Vector Research, Inc., 1969–; Quality of Traffic Service Committee, Highway Research Board, NAS, 1967; Board of Directors, Military Operations Research Society, 1967–70, president, 1969–70, chairman, Long-Range Planning Committee, 1971–72, Standing Papers Committee, 1972–73; Education Committee, Operations Research Society of

America, 1968–, Lecturer and Program Committee, 1969–, Membership Committee, 1971–72, secretary, 1974–; newsletter co-editor, American Institute of Industrial Engineers, 1971–72; Army Scientific Advisory Panel, 1973–; modeling of population processes; theories of research and development allocation strategies; studies of large-scale systems.

J. Kenneth Craver (see above, under "Section Chairman-Elect").

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Alfred Blumstein
Seth Bonder
Robert S. Cutler
Albert H. Rubenstein

Alfred Blumstein (operations research), 1930; B.E.P., Cornell University, 1951, Ph.D., 1960; M.A., University of Buffalo, 1954; principal operations analyst, Aeronautical Laboratory, Cornell University, 1951–61; staff member, Institute for Defense Analyses, 1961–69, director, Office of Urban Research, 1968–69; professor and director, Urban Systems Institute, Carnegie-Mellon University, 1969–; visiting associate professor, Cornell University, 1963–64; director, Science and Technology Task Force, President's Commission on Law Enforcement and Administration of Justice, 1966–67; Executive Committee, Council on Research, National Council on Crime and Delinquency, 1968–70; vice president and president-elect, Operations Research Society of America; chairman, Panel on Research on Deterrent and Incapacitative Effects, NAS; air traffic control; urban mass transportation; military operations; law enforcement and criminal justice.

Seth Bonder (see above, under "Member-at-Large of the Section Committee").

Robert S. Cutler (management sciences); B.S., University of Massachusetts, 1955; M.S., Stevens Institute of Technology, 1966; development engineer, Bell Telephone Laboratories, 1960–62; senior operations analyst, Federal Electric Corporation, 1962–64; professional staff member, Ford, Bacon & Davis, Inc., 1964–67; staff member, Office of Assistant Secretary for Research and Technology, Department of Transportation, 1967–68; director, Project SOAP, Technical Analysis Division, National Bureau of Standards, 1968–72, chief, program planning, Experimental Technology Incentives Program, 1972–73; associate, Division of Science Information, National Science Foundation, 1973–; ASME Committee on Transportation Technology, 1968.

Albert H. Rubenstein (management sciences, industrial engineering), 1923; B.S., Lehigh University, 1949; M.S., Columbia University, 1950, Ph.D., 1954; research associate, Columbia University, 1950–53; assistant professor, Massachusetts Institute of Technology, 1953–59; professor, Northwestern University, 1959–, head, Program of Research on the Management of Research and Development; visiting professor, University of California, Berkeley, 1964; editor, *Transactions on Engineering Management*, 1959–; Board of Directors, Narragansett Capital Corporation, 1959–; Advisory Committee on Manpower and Economics, National Science Foundation, 1960–68; vice president, Research and Education, Institute of Management Sciences, 1966–68; organization theory, with special reference to R & D.

Section Q—Education

Section Chairman-Elect (one to be elected for a 2-year term).

Marjorie H. Gardner
George T. O'Hearn

Marjorie H. Gardner (chemistry, science education), 1923; B.S., Utah State University, 1946; M.A., Ohio State University, 1958, Ph.D., 1960; administrative assistant to dean of women, Utah State University, 1946–48; high school teacher, 1947–56; NSF fellow, Ohio State University, 1957–58, instructor, 1958–60; assistant executive secretary, National Science Teachers Association, 1961–64; assistant to associate professor, University of Maryland, 1964–72, professor, 1972–, associate dean, College of Education, 1975; visiting professor, Macquarie University and Canberra College of Advanced Education, 1973–74; Ohaus Award for Outstanding Innovations in College Science Teaching, 1972; Fulbright Hayes senior scholar, 1973; Robert H. Carleton Award for National Leadership in Science Education, 1974; chairman, NSTA Materials Review Committee, 1965–70; member-at-large, Section Committee, AAAS Section on Education, 1967–70, 1975–78, Council, 1967–70, Commission on Science Education, 1973–74; Advisory Board, *Chemistry*, 1970–73; chairman, Curriculum Committees, American Chemical Society, 1971–73, member, Steering Committee on Preparation of Chemistry Teachers, 1975–; curriculum development in science; goal-free evaluation of the outcomes of new curricula or methods in science; levels of cognitive development in college level science students.

George T. O'Hearn (science education, physics), 1934; B.S., University of Wisconsin, Madison, 1957, M.S., 1960, Ph.D., 1964; assistant professor, University of Wisconsin, Madison, 1964–68; associate professor, University of Wisconsin, Green Bay, 1968–70, professor, 1970–; chairman, Patron Award Committee; Review Committee for Outstanding Young Science Educator, Association for the Education of Teachers of Science; scientific literacy; problem-focused learning in the sciences; assessment of diffusion demonstration process associated with curricular innovations.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

David H. Ost
Helen R. Russell

David H. Ost (science education, biology), 1940; B.A., Augsburg College, 1961; M.A., University of Michigan, 1965; Ph.D., University of Iowa, 1970; secondary school teacher, Owatonna, Minn., 1961–64; instructor, Wisconsin State University, 1965–66; assistant professor, Carthage College, 1966–67; instructor, University of Iowa, 1967–70; associate professor, California State College, 1971–74, professor, 1974– (on leave); director, Center for Professional Development, California State University and Colleges; chairman, Publications Committee, School Science and Mathematics Association, 1972–75; Policy Committee, National Association for Research in Science Teaching, 1973–75, Financial Advisory Committee, 1975–77; Committee on Excellence in Biology Education, National Association of Biology Teachers, 1973–75, vice president, 1975, chairman, Publications Advisory Committee, 1976–78; Sci-

ence Advisory Board, National Assessment of Educational Progress, 1974; Board of Directors, Association for the Education of Teachers in Science, 1974-76.

Helen R. Russell (environmental education), 1915; B.A., Lebanon Valley College, 1943; M.A., Cornell University, 1947, Ph.D., 1949; teacher, elementary grades, 1934-43; junior high school teacher, Lebanon, Pa., 1943-46; professor of biology, Fitchburg State College, 1949-56, department chairman, 1951-56, dean of studies, 1956-66; writing and free lance consulting, 1966-; Jersey Journal Woman of Achievement Award, 1973; Outstanding Alumni Award, West Chester State College, 1974; Alumni Hall of Fame, Lebanon Valley College, 1974; Eva L. Gordon Award for Children's Science Literature, 1976; techniques for teaching an appreciation and understanding of the urban environment; methods for improving the urban environment.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Hans O. Andersen
James V. DeRose
Milton O. Pella
Burton E. Voss

Hans O. Andersen (science education), 1935; B.Ed., University of Wisconsin, 1959; M.S., University of Michigan, 1960; Ed.D., Indiana University, 1966; biology teacher, Niles Township Community High School, Skokie, Ill., 1960-62, chairman, Science Department, 1962-65; assistant to associate professor, Indiana University, 1966-73, professor, 1974-, coordinator, Science Education, 1973, director, Division of Instruction and Curriculum, 1974-; Distinguished Teaching Award, Indiana University, 1972; visiting lecturer, Macquarie University, 1975; Board, Hoosier Association of Science Teachers; UNESCO senior expert in educational techniques, Institute for the Promotion of Teaching of Science and Technology, Bangkok, Thailand, 1972; science curriculum; science teacher preparation.

James V. DeRose (chemistry, science education), 1917; B.S., Bloomsburg State College, 1939; M.A., University of Pennsylvania, 1947, Ed.D., 1962; science teacher, Easton, Md., 1940-44; head, Science Department, Chester High School, Chester, Pa., 1944-60; science supervisor, Marple Newtown Schools, Newtown Square, Pa., 1960-; adjunct associate professor, Florida State University, 1970-72; Centennial Award in Science Education, 1967; James Bryant Conant Award in High School Chemistry Teaching, 1970; Benjamin Rush Award for Excellence in High School Chemistry Teaching, 1971; NSTA Citation for Distinguished Service to Science Education, 1972; Board of Directors, Chemical Bond Approach Project, 1960-64; Advisory Board, *Chemistry*, 1964-67; Executive Committee, National Science Teachers Association, 1964-67, president, NSTA, 1965-66; adviser, Educational Policies Commission, National Education Association, 1964-67; U.S. National Commission for UNESCO, 1970-75; Executive Committee, Division of Chemical Education, American Chemical Society, 1972-74; Commission on Science Education, AAAS, 1972-74; science curriculum development and implementation, K-12; innovations in science teaching specific to individualization and self-pacing.

Milton O. Pella (science education), 1914;

B.E., Milwaukee State Teachers College, 1936; M.S., University of Wisconsin, 1940, Ph.D., 1948; teacher, Wyler Military Academy, 1937-38; grade school teacher, Delavan, Wis., 1938-39; teacher, University of Wisconsin, Madison, 1939-42, 1946-50, assistant to associate professor, 1949-57, professor, 1957-; consultant, Ministries of Education, Turkey, 1959, Iran, 1962, Jordan, 1963; consultant, American University, Beirut, 1962, 1964, Universities of Jordan, 1965, 1966, Aleppo, Syria, 1966, Egypt, 1972; president, Central Association of Science and Mathematics Teachers, 1955, National Association for Research in Science Teaching, 1965; science concept and law definition and learning.

Burton E. Voss (science education), 1927; B.S., Central College, 1949; M.S., State University of Iowa, 1953, Ph.D., 1958; science teacher, Fulton, Ill., 1950-52; biological sciences research assistant, U.S. Army, 1953-55; science teacher, State University of Iowa, 1955-58; assistant professor, Pennsylvania State University, 1958-63; associate professor to professor, University of Michigan, 1963-; president, National Association of Biology Teachers, 1969, Michigan Science Teachers Association, 1970, School Science and Mathematics Association, 1976, Michigan Association of Science Education Specialists, 1976; Council, AAAS, 1966-68, Committee on Guidelines and Standards for Education of Secondary School Teachers of Science and Mathematics, 1970; consultant, National Assessment Project, 1967-72; Midwest chairman, Association of Education of Teachers of Science, 1972; co-director, *Guidelines for Self-Assessment of Junior and Senior High School Science Programs*, NSTA, 1974; relationships between teacher classroom behavior and student achievement and attitudes; methodological studies in teaching; teacher evaluation; learning theory in relation to classroom teaching applications.

Section R-Dentistry

Section Chairman-Elect (one to be elected for a 2-year term).

Ralph R. Lobene
Sholom Pearlman

Ralph R. Lobene (dentistry, periodontology), 1924; B.S., University of Rochester, 1944; D.D.S., University of Buffalo, 1949; M.S., Tufts University, 1962; captain, U.S. Army Dental Corps, and instructor, Army Medical Service Graduate School, 1951-53; assistant dental surgeon, Strong Memorial Hospital, and instructor, University of Rochester, 1953-62; assistant professor, University of the Pacific, 1962-63; assistant to senior member of the staff, Forsyth Dental Center, 1963-, head, Department of Clinical Experimentation, 1966-; director, Advanced Education, Forsyth School for Dental Hygienists, 1970-, dean and professor, 1975-; associate professor and academic director, Dental Assistants Training Program, Northeastern University, 1964-; visiting surgeon, Boston City Hospital, 1963-; lecturer, Tufts University School of Dental Medicine, 1964-; chairman, Dental-Medical Relations Committee, American Academy of Oral Medicine, 1970-; Committee on Research in Periodontology, American Academy of Periodontology, 1971-, Committee on Oral Health Care Delivery System, 1971-, chairman, 1975-; Clinical Cleansing Committee, ADA Council on Dental Thera-

peutics, 1973-; chairman, National Advisory Council, ADHA Career Options Curriculum in Dentistry, 1973-; vice regent, District 1, USA Section, International College of Dentists, 1974-; Advisory Panel on National Health Insurance, Subcommittee on Health, U.S. House of Representatives Committee on Ways and Means, 1975-; assessment of periodontal disease and evaluation of the effectiveness of therapeutic methods of treatment of periodontal disease; analytical methods for chemical analysis.

Sholom Pearlman (dental research and education), 1919; D.D.S., University of Toronto, 1945; M.S., Western Reserve University, 1951; staff dentist, Saskatchewan Mental Hospital, 1945-46; research assistant, Western Reserve University School of Medicine, 1948-51, teaching fellow to assistant professor of biochemistry, School of Dentistry, 1947-51; assistant secretary to secretary, Council on Dental Therapeutics, American Dental Association, 1951-68, director, Dental Research Information Center, 1964-68; professor, University of Colorado School of Dentistry, 1968-, director, Program Development, 1968-74, assistant dean, Program Development and Extramural Affairs, 1974-76; Research Medal Award, Association of Dental Alumni of Columbia University, 1968; National Research Council, 1959-68; Council, AAAS, 1960-73, secretary, Section on Dentistry, 1971-, Electorate Nominating Committee, Section R, 1974-76; Council, National Society of Medical Research, 1960-68; Committee on Research, American College of Dentists, 1963-73; Editorial Board, *Journal of Public Health Dentistry*, 1965-70; Advisory Boards, *Oral Research Abstracts*, 1965-, *Journal of Dental Education*, 1974-; Council on Dental Education and Research, Colorado Dental Association, 1969-; councilor, International Association for Dental Research, 1970-74; co-chairman, Denver Regional Council, President's Commission on Health Education, 1971-; Biomedical Library Review Committee, National Library of Medicine, 1975-; general dental sciences; health systems research; recruitment of dental scientists; interdisciplinary communication and collaboration; public understanding of dental science.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Erling Johansen
Gordon H. Rovelstad

Erling Johansen (dental research), 1923; D.M.D., Tufts College, 1949; Ph.D., University of Rochester, 1955; teaching fellow, Tufts University, 1948-49; Norwegian Armed Forces Dental Corps, 1949-50; instructor, Eastman School of Dental Hygiene, University of Rochester, 1952-64, assistant professor to professor, School of Medicine and Dentistry, 1955-66, Margaret and Cy Welcher professor, 1966-, chairman, Department of Dental Research, 1955-; traveling scholar, International College of Dentists, Asian Pacific countries, 1970; Council, International Association for Dental Research, 1958-61, 1969-, Board of Directors, 1974-75; Council, AAAS, 1966-67, 1973-77, member-at-large, Section Committee, Section on Dentistry, 1964-67, 1973-76; special consultant, Universidad Peruana Cayetano Heredia, Lima, Peru, 1968-; chairman, Section on Advanced Education, American Association of Dental Schools, 1969-70, Executive Committee, 1970-74, Committee on Legislation, 1974-; Council of

Scientific Research, New York State Dental Society, 1971–; Editorial Board, *Acta Odontologica Scandinavica*, 1973–; editor, *Journal of Dental Education*, 1974–; experimental dental caries; ultrastructure and chemistry of dental tissues; fluorides and caries prevention.

Gordon H. Rovelstad (pedodontics, dental education), 1921; D.D.S., Northwestern University, 1944, M.S.D., 1948, Ph.D., 1960; instructor to assistant professor, Northwestern University, 1946–53; attending dentist and chief, Dental Staff, Childrens Memorial Hospital, Chicago, 1949–53; director, Dental Research, U.S. Naval Training Center, Bainbridge, Md., 1954–58; head, Dental Research Branch, and research coordinator, Naval Graduate Dental School, 1960–65; officer in charge and scientific professor, Naval Dental Research Institute, 1965–69; head, Dental Research Branch, Bureau of Medicine and Surgery, Department of the Navy, and assistant for dental research, Office of Naval Research, 1969–74; professor and department chairman, University of Mississippi, 1974–, associate professor of physiology and biophysics, Medical Center, 1974–; Meritorious Service Medal, Secretary of the Navy, 1969, Legion of Merit, 1971, 1974; Merit Award, Northwestern University Alumni Association, 1973; president, International Association for Dental Research, 1971; Council, AAAS, 1969–74, member-at-large, Section Committee, Section on Dentistry, 1969–72; consultant, Advisory Committee, National Caries Program, National Institute of Dental Research, 1970–; regent, American College of Dentists, 1972–76; secretary, Section on Graduate and Postgraduate Education, American Association of Dental Schools, 1975–; oral biology; dental caries; preventive dentistry.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Harold M. Fullmer
Richard S. Manly
Barbara G. Mills
Norman H. Rickles

Harold M. Fullmer (oral pathology), 1918; B.S., Indiana University, 1942, D.D.S., 1944; instructor to associate professor, Loyola University School of Dentistry, 1947–53; principal investigator, National Institute of Dental Research, NIH, 1953–64, chief, Section on Histochemistry, 1966–70, Experimental Pathology Branch, 1968–70; director, Institute of Dental Research, University of Alabama, 1970–, professor and associate dean, School of Dentistry, 1970–; Isaac Schour Award, 1973; Dental Study Section, National Institute of Dental Research, 1966–70; associate editor, *Journal of Cutaneous Pathology*, 1974–; editor-in-chief, *Journal of Oral Pathology*, 1972–; Finance Committee, International Association for Dental Research, 1974–; Electorate Nominating Committee, AAAS Section on Dentistry, 1974–75, chairman, 1974, chairman-elect, Section R, 1976; president-elect, American Association for Dental Research, 1975–76, International Association for Dental Research, 1975–76; Dental Caries Program Advisory Committee, NIH, 1975–79; oral pathology; histochemistry; histochemical methods; metabolism of connective tissues.

Richard S. Manly (dental research), 1911; B.S., Antioch College, 1933; M.A., Oberlin College, 1934; Ph.D., University of Rochester, 1938; research chemist, Procter & Gamble Company, 1939–45; assistant profes-

sor, Tufts University School of Dental Medicine, 1945–47, professor and research director, 1947–62, department chairman, 1962–64, research professor, 1964–; president, Westwood Research Laboratory, Inc., 1953–; Chaim Prize, 1938; IADR Science Award, 1970; Dental Study Section, National Institute of Dental Research, 1956–59; president, International Association for Dental Research, 1966; Council, AAAS, 1967–70, secretary, Section on Dentistry, 1967–70, Electorate Nominating Committee, Section R, 1974; carbohydrate metabolism; physical properties of teeth; oral physiology; glycolysis inhibition; dental plaque composition and enzymes; dentifrice abrasion.

Barbara G. Mills (bone metabolism), 1924; B.A., University of Nebraska, 1946, M.S., 1948; M.D., University of Chicago, 1954; research associate, Presbyterian-St. Lukes Hospital, 1956–60; research associate to adjunct assistant professor, University of Southern California, 1964–70, assistant professor, 1970–, member, Graduate Faculty of Cellular and Molecular Biology, 1972–, student health service physician, 1973–; National Institute of Dental Research fellow, 1964–68; Professional Opportunities for Women Committee, American Institute of Chemists, 1971; metabolism of bone in response to drugs as reflected in changes in enzyme activity and bone collagen; ultrastructural changes in bone cells and tissue in various disease states or in response to specific therapy.

Norman H. Rickles (oral pathology), 1920; D.D.S., University of Washington, 1947; M.S., University of California, 1951; instructor to assistant clinical professor, University of California, 1947–56; clinical associate in dental and oral medicine, University of Oregon Medical School, 1957–67, clinical professor, 1967–, associate professor of dentistry, Dental School, 1956–60, professor, 1960–, professor of pathology, 1969–, department chairman, 1960–72; Fulbright professor, Hebrew University, 1966–67; consultant, American Dental Association Council on Dental Education, 1965–, U.S. Army Surgeon General, 1968–; president, American Academy of Oral Pathology, 1962–63; Animal Care Panel, 1964–; Advisory Committee, U.S. Army Research and Development Command, 1968–; dental caries; procaine allergy; methods of teaching dental students; histochemistry and methods of evaluation of oral disease.

Section S—Pharmaceutical Sciences

Section Chairman-Elect (one to be elected for a 2-year term).

Gilbert S. Banker
John G. Wagner

Gilbert S. Banker (pharmaceutics), 1931; B.S., Albany College, Union University, 1953; M.S., Purdue University, 1955, Ph.D., 1957; assistant to associate professor, Purdue University, 1957–64, professor, 1964–, department head, 1966–; Lederle Pharmacy Faculty Award, 1961; Industrial Pharmacy Award, APhA Academy, 1971; Executive Council, Rho Chi, 1964–66; chairman, Industrial Pharmaceutical Technology Section, APhA Academy, 1968–69, Executive Committee, 1968–69, 1971–72, chairman, Public Policy Committee, 1974–; chairman, IPT-Academy Award Committee, 1969–70; House of Delegates, APhA, 1969–71, chairman, Committee on Criteria for Efficacy, Safety and Reliability

of Drug Products, 1969–70; vice chairman, Academy of Pharmaceutical Sciences, 1971–72; physico-chemical approaches employing polymer and colloid chemistry to the precise design and pharmacodynamic control of dosage forms; applications of nuclear methods to process and product evaluation; pharmaceutical engineering.

John G. Wagner (pharmacy, clinical pharmacology), 1921; Phm.B., University of Toronto, 1947; B.S.P., University of Saskatchewan, 1948, B.A., 1949; Ph.D., Ohio State University, 1952; instructor to assistant professor, Ohio State University, 1951–53; research scientist, Upjohn Company, 1953–56, head, Pharmacy Research Section, 1956–63, senior research scientist, 1963–68; professor, University of Michigan, 1968–, assistant director, Research and Development of Pharmacy Service, University Hospital, 1968–72, staff member, Upjohn Center for Clinical Pharmacology, 1973–; John Roberts Gold Medal for Pharmacy and Chemistry, 1947; William E. Upjohn Award, 1960; Ebert Prize, American Pharmaceutical Association, 1961; Centennial Achievement Award, Ohio State University, 1970; Editorial Boards, *International Journal of Clinical Pharmacology*, 1967–, *Clinical Pharmacology and Therapeutics*, 1973–, *Guidelines to Professional Pharmacy*, 1974–; chairman, Section on Pharmacokinetics, American Society for Clinical Pharmacology and Therapeutics, 1968–70, vice chairman, 1970–, Board of Regents, 1968–73, vice president, 1972; Committee on Biologic Performance of Drug Products, APhA Academy of Pharmaceutical Sciences, 1971–, Nominations Committee, 1974–75; development of sensitive and specific methods to determine drugs and their metabolites in biological fluids; development and use of methods to quantitatively assess both rates of absorption and relative or absolute efficiencies of absorption of a drug from blood (serum or plasma) concentrations of unchanged drug.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Albert M. Mattocks
Michael A. Schwartz

Albert M. Mattocks (pharmaceutical chemistry), 1917; B.S., University of North Carolina, 1942; Ph.D., University of Maryland, 1945; research chemist, Southern Research Institute, 1945–47; associate professor, Western Reserve University, 1947–49; laboratory head, American Pharmaceutical Association, 1949–51; manager, Pharmaceutical Research, McNeil Laboratories, 1951–53; professor, University of Michigan, 1953–61, 1963–66; technical director, R. P. Scherer Corporation, 1961–63; professor, University of North Carolina, 1966–, head, Pharmaceutics Division, School of Pharmacy, 1970–; FDA consultant on drug bioavailability, 1973–; development of dosage adjustment schedules based on pharmacokinetic parameters.

Michael A. Schwartz (pharmaceutical chemistry), 1930; B.S., Brooklyn College of Pharmacy, 1952; M.S., Columbia University, 1956; Ph.D., University of Wisconsin, 1959; senior research scientist, Bristol Laboratories, 1959–63; assistant to associate professor, State University of New York, Buffalo, 1963–70, assistant dean, School of Pharmacy, 1966–70, dean and professor, 1970–; member, U.S. Herbal Pharmacology Delegation to People's Republic of China, 1974; secretary, Pharmaceutical Society of State of New York, 1972–

74; Committee on Research Awards, Academy of Pharmaceutical Sciences, 1971-72, Committee on Legislation, 1971-73, chairman, Committee on Honorary Membership, 1972-75; Program Committee, American Association of Colleges of Pharmacy, 1974, chairman Annual Program Committee, 1975; chemistry of drug allergy; models of enzyme action; drug stability; pharmaceuticals of penicillins.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Charles H. Nightingale
Fred T. Semeniuk
Joseph V. Swintosky
Paul Zanowiak

Charles H. Nightingale (pharmaceutics), 1939; B.S., Fordham University, 1961; M.S., St. John's University, 1966; Ph.D., State University of New York, Buffalo, 1969; lab assistant, St. John's University, 1964-66; coordinator, Education and Research, Mercy Hospital Pharmacy, New York, 1964-66; graduate teaching assistant, State University of New York, Buffalo, 1966-69; assistant professor, University of Connecticut, 1969-73, director, Clinical Education, 1970-, Graduate School Faculty, 1972-, associate professor, 1973-; Lederle Faculty Research Award, 1971; chairman, Section on Vitamin Therapy, and member, Scientific Review Panel, APhA Drug Interaction Project; Committee on Drug Product Selection of the Academy of General Practice of Pharmacy and the Academy of Pharmaceutical Sciences, American Pharmaceutical Association; factors affecting drug absorption; role of alpha tocopherol in membrane permeability; in vivo-in vitro correlations; pharmacokinetics of drug therapy; antibiotic penetration and disposition.

Fred T. Semeniuk (medicinal chemistry), 1915; B.Sc., University of Alberta, 1939; Ph.D., Purdue University, 1947; instructor, Purdue University, 1942-45, University of Wisconsin, 1946-47; assistant to associate professor, University of North Carolina, 1947-51, professor, 1951-; treasurer, Sigma Xi, North Carolina Chapter, 1961-63; pharmaceutical analysis and control.

Joseph V. Swintosky (pharmacy), 1921; B.S., University of Wisconsin, 1942, Ph.D., 1948; instructor to assistant professor, University of Wisconsin, 1947-53; section head, Pharmaceutical Research, and director of several research teams, Smith Kline & French Laboratories, 1953-67; professor and dean, College of Pharmacy, University of Kentucky, 1967-; adjunct professor, Temple University, 1958-67; Ebert Prize, 1958; Pharmacy Achievement Award, Philadelphia Branch, APhA, 1963; APhA Foundation Award in Physical Pharmacy, 1964; National Industrial Pharmaceutical Technology Award, 1975; member-at-large, AAAS Section on Pharmaceutical Sciences, 1958-61, vice president, AAAS, and chairman, Section S, 1960, Council, 1960, 1966-67; president, Philadelphia Branch, APhA, 1961-62; chairman, Scientific Section, APhA, 1964-65; Editorial Advisory Board, *Journal of Pharmaceutical Sciences*, 1964-69; president, Academy of Pharmaceutical Sciences, 1967-68; Committee on International Pharmacy, American Association of Colleges of Pharmacy, 1974-, chairman, Nominations Committee, 1975-; factors influencing drug absorption from the intestine of the rat; innovation in pharmaceutical education and health care delivery.

Paul Zanowiak (pharmacy), 1933; B.S., Rutgers University, 1954, M.S., 1957; Ph.D., University of Florida, 1959; instructor, University of Florida, 1958-59; research chemist, Noxell Corporation, 1959-64; assistant to associate professor, West Virginia University, 1964-71; professor and department chairman, Temple University, 1971-, assistant to dean, School of Pharmacy, 1971-72, acting dean, 1972-74; Lunsford Richardson Research Award, 1958; Meade Johnson Research Award, 1967-68; chairman, Teachers of Pharmacy Section, American Association of Colleges of Pharmacy, 1970-71, Kilmer Award Committee, 1970-71, Publications Committee, 1973-75, Administrative Board, Council of Sections, 1974-76, Academic Affairs Committee, 1975-76, chairman-elect, Council of Sections, 1976; National Council, Rho Chi Society, 1972-74, treasurer-elect, 1976; dispersed systems dosage form development; cosmetic sciences.

Section T-Information, Computing, and Communication

Section Chairman-Elect (one to be elected for a 2-year term).

Harold E. Bamford, Jr.
Eugene Garfield

Harold E. Bamford, Jr. (psychology), 1927; B.A., University of California, Berkeley, 1949, M.A., 1951, Ph.D., 1953; physical and experimental psychologist, Air Force Personnel and Research Center, 1953-54; research associate, University of Illinois, 1955-57; senior associate in psychology, Ritchie and Associates, Inc., 1957-59; senior group engineer, Boeing Company, 1959-61; systems engineer, International Telephone and Telegraph, 1961-62; human factors scientist senior, System Development Corporation, 1962-66; program director, Access Improvement Program, Office of Science Information Service, National Science Foundation, 1966-; engineering psychology; research management.

Eugene Garfield (chemistry, information science), 1925; B.S., Columbia University, 1949, M.S., 1954; Ph.D., University of Pennsylvania, 1961; research chemist, Evans Research and Development Corporation, 1949-50; chemist, Columbia University, 1950-51; staff member, Machine Indexing Project, Johns Hopkins University, 1951-53; president, Institute for Scientific Information, 1956-; lecturer, University of Pennsylvania, 1963-; Grolier Society fellow, 1953-54; consultant, Smith, Kline & French Laboratories, *Biological Abstracts*, National Library of Medicine, and *Encyclopedia Americana*, 1954-58; Advisory Committee to Cardiovascular Literature Project, NAS; founder, publisher, and editor, *Current Contents*, *Index Chemicus*, and *Science Citation Index*; member-at-large, Section Committee, AAAS Section on Information and Communication, 1970-73, Council, 1970-73.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Philip L. Altman
Richard H. Belknap

Philip L. Altman (zoology), 1924; B.A., University of Southern California, 1948; M.S., Western Reserve University, 1949; histopathology technician, University of Kansas Medical Center, 1951-52; biologist, U.S. Pub-

lic Health Service, Kansas City, 1952-54, NIH, 1955-56; research analyst, NAS-NRC, 1957-59; director, Office of Biological Handbooks, Federation of American Societies for Experimental Biology, 1959-; Committee on Form and Style, Council of Biology Editors, 1965-, Board of Directors, 1971-72, Membership Committee, 1971-72, chairman, CBE, 1972-73; Committee on Data for Science and Technology, 1970-, Executive Committee, 1973-, Publications Committee, 1973-, chairman, Advisory Panel on Biosciences, 1973-; Editorial Board, *Biosciences Communications*, 1975-. Electorate Nominating Committee, AAAS Section on Information, Computing, and Communication, 1974-76.

Richard H. Belknap; 1921; B.A., University of Pennsylvania, 1947; vice president, Lee Ramsdell & Company, Inc., 1948-51; account executive, Lamb, Smith & Keen, 1950-51; sales and advertising manager, Burton-Parsons & Company, J. S. Tyree Company, 1951-54; assistant to the assistant secretary for business affairs, American Chemical Society and Chemical Abstracts Service, 1954-56, business manager, 1957-60, director, Fundamental Journals, 1961-64, assistant director of publications and director of research journals, 1965-67; director, Printing and Publishing Office, NAS-NAE, Institute of Medicine, NRC, 1967-; Electorate Nominating Committee, AAAS Section on Information, Computing, and Communication, 1974-76, chairman, 1974.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Marilyn C. Bracken
Rita G. Lerner
Colin Mick
John W. Murdock

Marilyn C. Bracken (public administration, technology of management), 1935; B.S., Carnegie-Mellon University, 1957; M.A., American University, 1967, Ph.D., 1971; chemist, Melpar, Inc., 1957-58; chemical literature specialist, National Bureau of Standards, 1962-64; student trainee, Biological Sciences Communication Project, George Washington University, 1966-70; consultant, National Library of Medicine, 1970-71; information systems analyst, National Agricultural Library, 1971-72, Office of Information Systems, USDA, 1972-73; director, Division of Scientific Coordination, Bureau of Biomedical Science, Consumer Product Safety Commission, 1973-; Honor Award for Outstanding Contributions to CPSC, 1974; Consumer Product Safety Commission Nominee for the Federal Woman's Award, 1975; secretary, Potomac Valley Chapter, American Society for Information Science, 1972-73, member, Professional Enhancement Committee, 1972-, chairman, 1972-74, councilor-at-large, 1975-78; councilor, Environmental Health Sciences Section, Pan American Medical Association, 1975-; design, development, and evaluation of scientific and technical information systems; design and implementation of data bases and associated information retrieval systems.

Rita G. Lerner (chemical physics, information science), 1929; A.B., Radcliffe College, 1949; M.A., Columbia University, 1951, Ph.D., 1956; research associate, Columbia University, 1956-64; staff physicist, American Institute of Physics, 1965, deputy director, Information Analysis and Retrieval Division, 1966-67; director of laboratories, De-

partment of Biological Sciences, Columbia University, 1968; manager, Service Development Information, American Institute of Physics, 1969-70, Planning and Development, Physics Information Division, 1970-; microwave studies of molecular structure; information retrieval and information systems, especially as applied to physics.

Colin Mick (communication research); B.A., University of Alaska, 1963; M.A., Stanford University, 1969, Ph.D., 1972; news editor, University Relations, University of Alaska, 1966-67; research assistant to research associate, Institute for Communication Research, Stanford University, 1968-75, computer consultant, 1970-71; president, Applied Communication Research, Inc., 1973-; chairman, Special Interest Group on Technology, Information, and Society, American Society for Information Research; behavioral aspects of information transfer; information technology; policy research; large-scale field evaluation methodology; citizen participation systems; design of dynamic information systems.

John W. Murdock (physics, information science), 1922; B.S., Marshall University, 1949; M.S., Iowa State University, 1955; principal physicist, Electrical Engineering Division, Battelle Memorial Institute, 1951-53, assistant chief, Information Management Division, 1953-60, associate manager, Department of Economics and Information Research, 1960-70, manager, Department of Information and Communication, 1970-73, program manager for information, 1974; consultant in information systems, 1975; senior information scientist, Informatics, Inc., 1976-; consultant, Science Information Council, NSF, 1970-74; Numerical Data Advisory Board, NRC, 1972; Advisory Board, Chemical Abstracts Service, 1974.

Section U-Statistics

Section Chairman-Elect (one to be elected for a 2-year term).

Samuel W. Greenhouse
Oscar Kempthorne

Samuel W. Greenhouse (statistics), 1918; B.S., City College of New York, 1938; M.A., George Washington University, 1954, Ph.D., 1959; statistician, National Cancer Institute, NIH, 1948-54, chief, Theoretical Statistics and Mathematics Section, National Institute of Mental Health, 1954-66, associate director, Epidemiology and Biometry, National Institute of Child Health and Human Development, 1966-74; professor, George Washington University, 1974-; visiting professor, Stanford University, 1960-61; Superior Service Award, DHEW, 1969; president, Washington Statistical Society, 1967-68, Biometric Society, ENAR, 1969; chairman, Biometrics and Epidemiological Methodology Committee, U.S. Food and Drug Administration, 1970-74; Electorate Nominating Committee, AAAS Section on Statistics, 1974, member-at-large, Section Committee, Section U, 1976-79; statistical theory and methodology.

Oscar Kempthorne (statistics), 1919; B.A., Cambridge University, 1940, M.A., 1943, Sc.D., 1960; statistician, Rothamsted Experimental Station, England, 1941-46; associate professor, Iowa State University, 1947-51, professor, 1951-, distinguished professor of science and humanities, 1964-; visiting professor, Oklahoma State University, 1962, University of Buenos Aires, 1963, Stanford University, 1964, University of Washington,

1974; past president, Biometrics Society, ENAR; past director, American Statistical Association; past member, Editorial Board, *Annals of Mathematical Statistics*; S. S. Wilks Memorial Medal Committee; design of experiments; biological statistics; statistical inference.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Janet D. Elashoff
Edward B. Perrin

Janet D. Elashoff (statistics), 1942; B.S., Stanford University, 1962; Ph.D., Harvard University, 1966; research associate, Stanford University, 1965-66, assistant professor, School of Education, and administrative head, Methodology Unit, Stanford Center for Research and Development in Teaching, 1967-73, assistant professor of education and statistics, 1973-74; statistical advisor, Center for Advanced Study in the Behavioral Sciences, 1974-75; associate research statistician, UCLA-Center for Ulcer Research and Education, 1975-; visiting professor, Harvard University, 1966; Palmer O. Johnson Memorial Award, 1971; associate editor, *Journal of Educational Statistics*, and Theory and Methods Section, *Journal of the American Statistical Association*, 1976; Analysis Advisory Committee for the National Assessment of Educational Progress, Education Commission of the States, 1973-; Biometry and Epidemiology Contract Review Committee, National Cancer Institute, 1973-; Nominating Committee, Biometric Society, WNAR, 1974; Electorate Nominating Committee, AAAS Section on Statistics, 1974-75, chairman, 1974; research design and data analysis; robustness studies.

Edward B. Perrin (biostatistics), 1931; B.A., Middlebury College, 1953; M.A., Columbia University, 1956; Ph.D., Stanford University, 1960; assistant professor, University of Pittsburgh, 1959-62; assistant professor to professor and division head, University of Washington, 1962-70, professor and department chairman, School of Public Health and Community Medicine, 1970-72; deputy director to director, National Center for Health Statistics, DHEW, and clinical professor, Georgetown University, 1972-75; research scientist, Health Care Study Center, Battelle Human Affairs Research Center, and professor, University of Washington, 1975-; Fulbright scholar, University of Edinburgh, 1953-54; Billings Gold Medal, American Medical Association, 1966; Mortimer Spiegelman Health Statistics Award, APHA, 1970; Institute of Medicine, National Academy of Sciences, 1974; Administrator's Special Citation for Outstanding Service, Health Resources Administration, DHEW, 1975; biometrician, Veterans Administration Cooperative Study on Treatment of Esophageal Varices, 1961-76; Program Development Board, American Public Health Association, 1970, Statistics Section Council, 1972-74; president, Biometric Society, WNAR, 1972; co-chairman, Health Data Policy Committee, DHEW, 1973-75; Technical Board, Milbank Memorial Fund, 1974; ASA Advisory Committee to Division of Statistical Policy, Office of Manage-

ment and Budget, 1975; health data systems and application of statistics to biomedical sciences.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Isidore Altman
William M. Haenszel
David C. Hoaglin
Joan R. Rosenblatt

Isidore Altman (biostatistics), 1912; B.S., City College of New York, 1932, M.S., 1933; LL.B., Washington College of Law, 1937; Ph.D., University of Pittsburgh, 1952; statistician, U.S. Public Health Service, 1936-52; chief statistician, Commission on Financing Hospital Care, 1952-54; statistical consultant, United Cerebral Palsy Associations, Inc., 1954-55; assistant to associate professor, University of Pittsburgh, 1955-60, professor, 1960-70; assistant director, Center for Community Health and Medical Care, Harvard Medical School, 1970-75; research professor of health services administration and biostatistics, University of Pittsburgh, 1975-; Pittsburgh Statistician of the Year, 1976; president, Pittsburgh Chapter, American Statistical Association, 1970; chairman, Resolutions Committee, Statistics Section, American Public Health Association, 1974-; health services research (evaluation and quality assessment).

William M. Haenszel (biometry), 1910; B.A., University of Buffalo, 1931, M.A., 1932; junior statistician to statistician, New York State Department of Health, 1934-47; director, Bureau of Vital Statistics, Connecticut State Department of Health, 1947-52; lecturer, Yale University School of Medicine, 1949-53; head to associate chief, Biometry Section, National Cancer Institute, 1952-61, chief, 1961-; adjunct professor, University of Pittsburgh, 1967-; Committee on Statistical Facts for Public Presentation, American Cancer Society, 1954-, Epidemiology and Statistics Committee, 1960-; Ad Hoc Group on International Cooperation in the Evaluation of End Results of Cancer Treatment, 1959-; Committee on Mortality Statistics, Population Association of America, 1964-; chairman, Biometrics Section, American Statistical Association, 1965-66; Committee on Epidemiology, Breast Cancer Task Force, 1972-; co-chairman, Committee on Carcinogenesis and Epidemiology, National Large Bowel Cancer Project, 1974-; vital statistics; epidemiology of cancer; methodology of field investigations in chronic diseases.

David C. Hoaglin (statistics), 1944; B.S., Duke University, 1966; Ph.D., Princeton University, 1971; instructor to assistant professor, Harvard University, 1970-72; senior research associate, Computer Research Center for Economics and Management Science, National Bureau of Economic Research, 1972-75; lecturer, Harvard University, 1972-; Woodrow Wilson fellow, 1966; NSF graduate fellow, 1966-70; associate editor, Theory and Methods Section, *Journal of the American Statistical Association*, 1974-; program chairman, Section on Statistical Computing, American Statistical Association, 1975, chairman-elect, 1976; Committee on Mathematical Tables, Institute of Mathematical Statistics; Management Committee, *Current Index to Statistics*, 1975-77; data analysis; statistical computation.

Joan R. Rosenblatt (mathematical statistics), 1926; A.B., Barnard College, 1946; Ph.D., University of North Carolina, 1956;

**Your ballot form will arrive
about mid-September.**

statistical analyst, U.S. Bureau of the Budget, 1947–48; research assistant, University of North Carolina, 1953–54; mathematician, Statistical Engineering Laboratory, National Bureau of Standards, 1955–, assistant chief, 1965–69, chief, 1969–; Achievement Award, Washington Academy of Sciences, 1966; Silver Medal, U.S. Department of Commerce, 1969; Federal Woman's Award, 1971; program secretary, Institute of Mathematical Statistics, 1965–68, Council, 1975–77; Editorial Board, *SIAM Journal on Applied Mathematics*, 1968–; general program chairman, American Statistical Association, 1974, chairman, Section on Physical and Engineering Sciences, 1975; nonparametric methods; reliability of complex systems; statistical methods in development and use of measurement and test methods and standards in the physical and engineering sciences.

Section W—Atmospheric and Hydrospheric Sciences

Section Chairman-Elect (one to be elected for a 2-year term).

Kenneth C. Spengler
Warren M. Washington

Kenneth C. Spengler (atmospheric science), 1915; A.B., Dickinson College, 1936; executive officer, Weather Central Division, USAF, 1942, chief, Climatological and Statistical Division, 1943, Weather Central, 1944–45; executive director, American Meteorological Society, 1946–; Charles Franklin Brooks Award, American Meteorological Society, 1968; Air Weather Service Award, 1972; Legion of Merit, 1975; Council, AAAS, 1949–77, Committee on Council Affairs, 1961, 1963–65, Committee on Nominations and Elections, 1971–72, Electorate Nominating Committee, Section on Atmospheric and Hydrospheric Sciences, 1974–76, chairman, 1975; Board of Directors, National Federation of Science Abstracting and Indexing Services, 1959–71, president, 1969–70; Advisory Board, Earth Science Curriculum Project, American Geological Institute, 1964–70; Board of Directors, Council of Engineering and Scientific Society Executives, 1967–, president, 1971–72; Inter-Society Liaison Committee for the Environment, 1971–, chairman, Steering Committee, 1971–73; Council, American Geophysical Union, 1974–; U.S. National Committee, International Union of Geodesy and Geophysics, 1974–; meteorology; geophysics.

Warren M. Washington (atmospheric science), 1936; B.S., Oregon State University, 1958, M.S., 1960; Ph.D., Pennsylvania State University, 1964; research scientist, National Center for Atmospheric Research, 1963–72, program scientist, Dynamical Aspects of Atmospheric Circulation, 1972–73, project leader, Large-Scale Modeling and Analysis Group, 1973–74, group leader, General Circulation Model Coordination and Operations Group, and executive secretary, General Circulation Modeling Steering Committee, 1974–; chairman, Youth Council, AAAS, 1970, member, Committee on Minorities in Science, 1971–72, Committee on Opportunities in Science, 1973–76, chairman, 1976, chairman, Panel on Black Scientists, 1973–; Advisory Panel for Atmospheric Sciences, NSF, 1972–74; Panel on Climatic Variation, NAS-NRC, 1972–75; Panel on the Monsoon Experiment (MONEX), NAS-U.S. GARP Committee, 1974; Panel on Energy and Climate, Geophysics Board, NAS-NRC, 1974–76; Panel

on NSF Energy-Related Postdoctoral Fellowship Program, 1975–76; Governor's Scientific Advisory Committee, State of Colorado, 1975–; computer simulation of the atmosphere.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

John C. Freeman
Hugh J. McLellan

John C. Freeman (meteorology), 1920; B.A., Rice Institute, 1941; M.S., California Institute of Technology, 1942; Ph.D., University of Chicago, 1952; assistant, Brown University, 1946–48; meteorologist, U.S. Weather Bureau, 1948–49; member, Institute for Advanced Study, 1949–50; research associate, University of Chicago, 1950–52; assistant oceanographer, Texas A&M University, 1952–53, assistant to associate professor, 1953–55; owner, Gulf Consultants, 1955–62; professor, University of St. Thomas, Houston, 1959–, director of research, Institute for Storm Research, 1966–; technical director, National Engineering Science Company, 1962–66; Meisinger Award, American Meteorological Society, 1951, Award for Outstanding Achievement, 1961; chairman, AMS Industrial Meteorologist Committee; consultant, Taiwan Weather Bureau; numerical analysis in meteorology and oceanography; tropical meteorology and air-sea interaction; effects of storms at sea on structures; mesoscale problems in meteorology.

Hugh J. McLellan (physical oceanography, science administration), 1921; B.S. Dalhousie University, 1941, M.S., 1947; Ph.D., University of California, Los Angeles, 1956; oceanographer, Fisheries Research Board of Canada, 1947–57; assistant professor to professor, Texas A&M University, 1957–64; oceanographer, Office of Naval Research, 1964–67; head, Oceanography Section, Division of Environmental Sciences, National Science Foundation, 1967–69; associate scientific and technical director, U.S. Naval Oceanographic Office, 1969–71; associate program director, National Sea Grant Program, National Oceanic and Atmospheric Administration, 1971–75, director, Grants Management, 1975–; secretary, Oceanography Section, American Geophysical Union, 1965–71.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Julian Adem
Celso S. Barrientos
Margaret A. LeMone
Thomas A. Seliga

Julian Adem (meteorology, applied mathematics), 1924; Ph.D., Brown University, 1953; professor of applied mathematics, National University of Mexico, 1954–55; fellow, University of Stockholm, 1955–56; professor of geophysics, National University of Mexico, 1957–65, 1971–, assistant director, Institute of Geophysics, 1957–59, director, 1959–65, 1971–; research meteorologist, National Meteorological Center, National Weather Service, National Oceanic and Atmospheric Administration, 1965–71; visiting professor, University of Hamburg, 1961–62; founder and editor, *Geofisica Internacional*, 1960–; president, Mexican Geophysical Union, 1960–; vice chairman, Mexican Committee, International Geophysical Year, 1957–59; elastic wave propagation; motion of atmospheric vortices; development of thermodynamical mod-

el for long-range forecasting; heat budget of the atmosphere; air-sea interaction.

Celso S. Barrientos (meteorology, oceanography), 1935; B.S., Feati University, Manila, 1958; M.Sc., New York University, 1965, Ph.D., 1971; meteorologist, Philippine Weather Bureau, 1958–61; assistant research scientist, New York University, 1962–66; research scientist, ISOTOPES Teledyne, 1966–68; research meteorologist, National Weather Service, NOAA, 1969–; Colombo Plan fellow, 1958; Most Outstanding Mechanical Engineering Graduate, Philippine Society of Mechanical Engineers, 1960; Special Achievement Award, NOAA, 1972; Committee on Minorities and Women, American Geophysical Union; hurricanes; dynamics; diffusion; air-sea interactions; waves; ocean currents; storm surges.

Margaret A. LeMone (atmospheric sciences), A.B., University of Missouri, 1967; Ph.D., University of Washington, 1972; postdoctoral fellow, Advanced Study Program, National Center for Atmospheric Research, 1972–73, Ph.D. scientist, 1973–, acting project leader, GARP Atlantic Tropical Experiment (GATE) Group, 1974–75; Woodrow Wilson fellow; NSF fellow; NDEA fellow; chairperson, Ad Hoc Committee on the Role of Women in the Atmospheric Sciences, American Meteorological Society, 1974–75, Board on Women and Minorities, 1975–; structure and dynamics of the atmospheric boundary layer; role of clouds in the boundary layer; aircraft measurements of atmospheric structure.

Thomas A. Seliga (atmospheric sciences, electrical engineering), 1937; B.S., Case Institute of Technology, 1959; M.S., Pennsylvania State University, 1961, Ph.D., 1965; instructor to assistant professor, Pennsylvania State University, 1961–69; program director for aeronomy, National Science Foundation, 1967–68; associate professor, Ohio State University, 1969–, director, Atmospheric Sciences Program, 1971–; Ronald W. Thompson Award for Meritorious Achievement, Ohio State University, 1975; Committee on Air Quality, Technical Advisory Task Force, TB Society of Columbus and Central Ohio, 1970–, chairman, 1974–75; chairman, Columbus Section, AP/MTT Societies, Institute of Electrical and Electronics Engineers, 1975–76; Board of Meteorological Education in Universities, American Meteorological Society, 1975–; radiowave propagation in the ionosphere; radar meteorology; air pollution; environmental education; climatological change.

Section X—General

Section Chairman-Elect (one to be elected for a 2-year term).

Allen V. Astin
Herman Pollack

Allen V. Astin (applied physics, mathematical sciences), 1904; B.S., University of Utah, 1925; Ph.D., New York University, 1928; research associate, National Bureau of Standards, 1930–32, physicist, 1932–44, assistant chief, Ordnance and Electronics Division, 1945–48, chief, Electronics Division, 1948–50, director, NBS, 1952–69, retired; Gold Medal Exceptional Service Award, U.S. Department of Commerce, 1960; Harry Diamond Award, IEEE, 1970; Scientific Apparatus Makers Association Award, 1973; American Academy of Arts and Sciences; National Academy of Sciences; Defense Science Board, 1956–69; chairman, Committee on

Federal Laboratories, Federal Council on Science and Technology, 1962-69; Westinghouse Science Writing Awards Committee of Judges, AAAS, 1963-66, chairman, Section on Physics, 1966, Section on Industrial Science, 1967, Council, 1966-67, chairman, Committee on Scientific Freedom and Responsibility, 1971-74; Motor Vehicle Safety Advisory Council, 1968-72.

Herman Pollack (science administration), 1919; B.S., City College of New York, 1940; M.A., George Washington University, 1964; various assignments, Office of Price Administration, War Shipping Administration, and Foreign Economic Administration, 1941-46; various posts, U.S. Department of State, 1946-74, including deputy assistant secretary for personnel and director, Bureau of International Scientific and Technological Affairs, 1967-74; consultant and research professor, George Washington University, 1974-; U.S.-U.S.S.R. Commission on Scientific and Technological Cooperation, 1972-74; Board of Governors, U.S. Israeli Bi-National Science Foundation, 1973-; Electorate Nominating Committee, AAAS Section X-General, 1976-78; international science policy and relations.

Member-at-Large of the Section Committee (one to be elected for a 4-year term).

Myron B. Kratzer

Dael Wolffe

Myron B. Kratzer (international scientific affairs), 1925; B.Ch.E., Ohio State University, 1947, B.S., 1974; chemical engineer, Stanolind Oil & Gas Company, 1948-51; chemical engineer, U.S. Atomic Energy Commission, 1951-58, assistant director to deputy director, 1958-64, director, Division of International Affairs, 1964-67, general manager for international activities, 1967-71; scientific counselor, U.S. Department of State, Buenos Aires, 1971-73, Tokyo, 1973-75, deputy as-

sistant secretary, Bureau of Oceans and International Environmental Affairs, 1975-, acting assistant secretary of state, Oceans and International Environmental and Scientific Affairs; William A. Jump Award, 1961; Distinguished Service Medal, U.S. Atomic Energy Commission, 1969.

Dael Wolffe (science policy, administrative sciences), 1906; B.S., University of Washington, 1927, M.S., 1928; Ph.D., Ohio State University, 1931; instructor, Ohio State University, 1929-32; professor, University of Mississippi, 1932-36; examiner in biological sciences, University of Chicago, 1936-39, assistant to associate professor of psychology, 1938-45; executive secretary, American Psychological Association, 1946-50; director, Commission on Human Resources and Advanced Training, 1950-54; executive officer, AAAS, 1954-70; professor of public affairs, University of Washington, 1970-, acting dean of architecture and urban planning, 1972-73; Presidential Certificate of Merit, 1948; Board of Trustees, Russell Sage Foundation, 1961-, James McKeen Cattell Fund, 1962-; trustee, Pacific Science Center Foundation, 1962-; secretary, American Council on Education, 1966-67; Board of Human Resources, NAS-NRC, 1970-; Manpower Institute, National Industrial Conference Board, 1970-; Committee on Graduate Medical Education, Association of American Medical Colleges, 1972-; Committee on Publications, AAAS, 1974; education, utilization, mobility, supply, and demand trends of scientific and specialized personnel.

Members of the Electorate Nominating Committee (two to be elected for 3-year terms).

Daniel Alpert

Warren H. Donnelly

Kai-hung Lau

Patricia Tornheim

Daniel Alpert (gaseous and physical electronics), 1917; B.S., Trinity College, 1937, D.Sc., 1957; Ph.D., Stanford University, 1942; assistant in physics, Stanford University, 1939-41, research associate, 1940; fellow, Westinghouse Research Laboratories, 1941-42, research physicist, 1942-50, manager, Physics Department, 1950-55, associate director, 1955-57; professor, University of Illinois, 1957-, dean, Graduate College, 1965-; Defense Science Board, 1963-; editor, *Journal of Vacuum Science and Technology*, 1964-66; Board of Trustees, Institute for Defense Analyses, 1965-; chairman, Electorate Nominating Committee, AAAS Section X-General, 1974; physical electronics; microwave tube components; ultrahigh vacuum; space science.

Warren H. Donnelly (energy policy), 1921; B.S., Queens College, 1942; M.A., New York University, 1954, Ph.D., 1962; junior engineer, Western Electric Corporation, 1946-48; administrative assistant and contracting officer, U.S. Atomic Energy Commission, New York, 1948-58, director, Technical Services Division, 1958-63, industrial specialist, Washington, D.C., 1963-65; specialist, science and technology, Legislative Reference Service, Science Policy Research Division, Library of Congress, 1965-69, senior specialist, Congressional Research Service, 1969-; energy policy; nuclear energy; energy conservation; alternate sources of energy.

Kai-hung Lau (physics), 1945; B.S., Chung Yen College, 1967; Ph.D., Arizona State University, 1974; postdoctoral fellow, Stanford Research Institute; high temperature physics.

Patricia Tornheim (neuroanatomy), 1939; B.A., Rosary College, 1962; M.A., University of Illinois, 1965; Ph.D., University of Kansas, 1973; assistant professor, University of Cincinnati Medical School; Homer B. Latimore Award for Student Research, University of Kansas, 1973; brain edema.