

AAAS Annual Elections

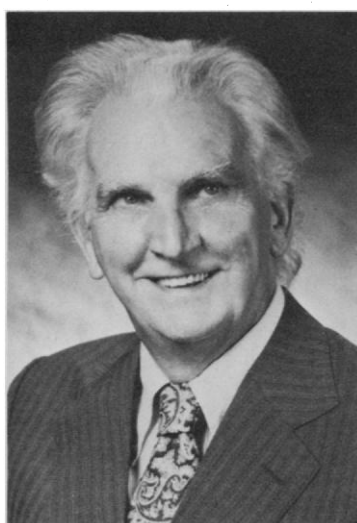
Ballots for the Association's 1977 elections and this announcement should reach members of the Association at about the same time. All members will receive a general-election ballot for president-elect, members of the Board of Directors, and members of the Committee on Nominations. Each member who is enrolled in one of the 21 electorates corresponding to the AAAS Sections will also receive an electorate-election ballot for Section chairman-elect, member-at-large of the Section Committee, and members of the Electorate Nominating Committee. The ballots for Electorates Q, R, S, T, U, W, and X will also list candidates for Council delegate.

The 3 June preliminary election announcement listed the names of all candidates and offered members the opportunity to place additional names in nomination by petition. No petitions were received by the 26 July deadline.

A ballot for amendment of Constitution Articles II, VI, and VII is being mailed with the election ballots. Assuming that a majority of AAAS members (or two-thirds of the members who return ballots) ratify the proposed amendments to Articles VI and VII, the terms of all new officers, Council delegates, and committee members will begin on 18 February 1978.

Biographies of the 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; the statements of Board candidates follow their biographies.

Having served as president for two professional associations, I am under no illusions as to the powers of the temporary head of an organization. It is a president's principal duty to provide continuity, to ask people to do a lot of unpaid work, to keep the organization running, and to be a resource in times of crisis. The main function is to act as a channel of communication among the people who are concerned about the organization, to preside over the making of decisions rather than to make them.



Kenneth E. Boulding

The president may make some modest innovations but organizations, and especially professional organizations, have a great deal of momentum and each successive president can only turn the steering wheel by a very small fraction.

I regard the American Association for the Advancement of Science as a very important organization. It is the only organization in this country to which all members of the scientific community can belong. It is not a mutual admiration society. It does not speak for its membership. Its main function is to facilitate communication, and it does this very well through its meetings and publications, especially through *Science*—the only journal which I simply cannot do without. I think the organization does a very good job and I would not propose any radical reforms.

I would, however, raise one question for discussion in the organization in regard to possible expansions of its activity in the future. Should the Association, perhaps through some specialized committees, maintain closer contact with certain parts of its larger environment, for instance, with the President and the Congress of the United States, with the scientific community around the world, with the universities and the schools, with the churches and religious communities, with the organized pressure groups and public interest groups, and so on? The Association already has a considerable amount of activity in this area, but this perhaps needs to be looked at to see if it is missing some parts of its potential constituency of interaction and communication.

The AAAS, which represents all the sciences, serves as both a natural and a national spokesman on scientific and technical issues. More and more national attention has been directed towards such issues in recent years. The importance of the activities of the boards, committees and staff of the AAAS is increasing commensurately. Further, *Science*, the largest circulated professional scientific journal, serves as a unique communications mechanism not just within AAAS membership ranks but on the national scene.



Ruth M. Davis

I am convinced that the AAAS has a mandate, which it should exercise, to achieve the best purposeful balance between the active advance of science and its responsible application and use. It is extremely important, in the nervous world we inhabit today, to have institutions and processes for discussing and deciding on goals for science. This task includes assigning values and assessing the risks, as best we can, to the anticipated results of science and technology. As a society, we presently lack such trusted, open and definitive risk and value-setting mechanisms. The AAAS could help fill this gap: it has already shown that it can work with academic institutions, as well as business and Government. The AAAS has recently initiated an embryonic but already successful venture in enhancing communications in science and public policy. This has been accomplished through an annual Washington-based colloquium bringing together national decision makers and scientists. I would encourage additional activities of this type by AAAS.

In the near future, the AAAS will need to provide for even more responsible scientific participation in many national issues already visible which are highly dependent upon science and technology for successful resolution. AAAS has the assets to so do within the admirable resources provided by its own membership. Its approximately 124,000 members are drawn from all segments of the scientific community and represent the best of the world's scientific heritage. The AAAS

has no competitor in its ability to explain the scientific basis of controversial issues so as to increase the public understanding of science and aid in better public decision making on local, state and national levels.

We need to remind ourselves also that individual creativity which underlies all scientific endeavors flourishes best in free societies. America, which has so fortunately enjoyed the scientific freedom which is synonymous with scientific accomplishment, has with renewed vigor been encouraging scientific and human freedom everywhere. The AAAS has an active international program which I believe can serve as a basis for the entire scientific community in providing a hospitable international environment for scientific endeavors.

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.)

Kenneth E. Boulding

Ruth M. Davis

Kenneth E. Boulding

Kenneth E. Boulding, 67 (economics, international systems, general systems, general social dynamics), B.A. (1931) and M.A. (1939), Oxford University; Commonwealth fellow, University of Chicago, 1932–34; fellow, Center for Advanced Study in the Behavioral Sciences, 1954–55; recipient of 23 honorary degrees.

Since 1968, Boulding has been professor of economics at the University of Colorado and, since 1967, director of the Program of Research on General Social and Economic Dynamics at the University's Institute of Behavioral Science. He taught earlier at Colgate University, Fisk University, Iowa State University, McGill University, and the University of Michigan, where he was director of the Center for Research on Conflict Resolution in 1965–66. He has been a visiting professor at universities in Jamaica, Japan, South Africa, and Scotland. He was Patten lecturer at Indiana University in 1973 and Distinguished Visiting Tom Slick Professor of World Peace at the Lyndon B. Johnson School of Public Affairs in 1976–77. In 1974, Cornell University appointed him as Andrew D. White professor-at-large.

Boulding has received the John Bates Clark Medal, American Economic Association, 1949; Prize for Distinguished Scholarship in the Humanities, American Council of Learned Societies, 1962; and Frank E. Seidman Distinguished Award in Political Economy, 1976. He was elected to the National Academy of Sciences in 1975 and is a fellow of the American Philosophical Society and the American Academy of Arts and Sciences.

He is the author of some 20 books, including *Economic Analysis*, *The Reconstruction of Economics*, *The Image*, *The Meaning of the Twentieth Century*, *Conflict and Defense*, *Beyond Economics*, *Economics as a Science*, *The Economy of Love and Fear: A Preface to Grants Economics*. He was the first president

of what is now the Society for General Systems Research, 1957–59, and has served as president of the American Economic Association, 1968, of the Peace Research Society, 1970, of the International Studies Association, 1974–75, and, since 1970, of the Association for the Study of the Grants Economy. He was a member of the AAAS Council in 1961–62 and 1967–70, and was chairman of the Section on Social and Economic Sciences (K) in 1966.

Ruth M. Davis

Ruth M. Davis, 48 (mathematics and computer science), B.A., American University, 1950; M.A. (1952) and Ph.D. (1955), University of Maryland.

Davis has been Deputy Director of Defense Research and Engineering (Research and Advanced Technology), U.S. Department of Defense, since July 1977. Before this appointment, she had been director of the Institute for Computer Sciences and Technology of the National Bureau of Standards since its establishment in 1972.

She has specialized in real-time control systems, man-machine communications, computer networking, computer security, and automation development. 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.

From 1961 to 1967, Davis was staff assistant for intelligence and reconnaissance, Office of the Director of Defense Research and Engineering. 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, leaving that position to join the National Bureau of Standards as director of the Center for Computer Sciences and Technology.

Davis has been visiting professor, University of Pittsburgh, since 1968. She was adjunct professor, Moore School of Engineering, University of Pennsylvania, in 1976. She was guest lecturer at Harvard University in 1973 and gave invited lectures in 1975 at Juniata College, Drexel University, University of New York at Stony Brook, Duke University, and Southern Methodist University.

She 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 a fellow of the Society for Information Display, of

We have become increasingly aware in recent years that scientific freedom is not a right. It is a privilege for those of us who enjoy it and a goal for those who do not. The best means for preserving scientific freedom is through the assumption of scientific responsibility. The AAAS and its membership have taken a lead role in this field through a formal committee activity. The coupling of scientific freedom and responsibility and demonstrating support for this coupling is one of the greatest services the AAAS can perform. I strongly support it.

There is no better time than now to highlight the idealism and excitement of science along with potential benefits and risks derivative from scientific advances. There is no better organization than AAAS to so do.

AAAS, and was chairman of the Advisory Council of the Electric Power Research Institute, 1976–77. She has served on the Maryland Governor's Science Advisory Council; Council of Library Resources; Board of Visitors of the Annenberg School of Communications, University of Southern California; and many other advisory and editorial groups.

She has chaired the Editorial Advisory Committee for the Annual Review of Information Science and Technology, 1965–66; Panel on Information Sciences Technology, COSATI, 1965–70; Committee on Automation Opportunities in the Service Areas, Federal Council on Sciences and Technology, 1971–75; Task Forces for the Domestic Council Committee on Individual Rights of Privacy, 1974–75.

Some 50 of Davis's articles have been published in scientific and technical journals. She has received the National Civil Service League's 1976 Career Service Award, the Rockefeller Public Service Award for Professional Accomplishment and Leadership (1973), the Systems Professional of the Year Award, Association for Systems Management (1972), the Department of Commerce Gold Medal Award (1972), the Purdue University Old Masters Award (1974), the Federal Women of the Year Award (1972), and medals from the University of Helsinki and Karolinska Institutet, Sweden.

In AAAS, she is a member of the Board of Directors, the Executive Committee, the Council, the AAAS-American Bar Association National Conference of Scientists and Lawyers, and the Committee on Future Directions; she served as chairman of the Section on Information, Computing, and Communication (T) in 1975.

Members of the Board of Directors

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

George Bugliarello

Eloise E. Clark

Claire Nader

Russell W. Peterson

George Bugliarello

George Bugliarello, 50 (biomedical engineering, environmental resources and social implications of technology), Dott. Ing., University of Padua, 1957; M.S.C.E., University of Minnesota, 1954; Sc.D., Massachusetts Institute of Technology, 1959.

Bugliarello has been president of the Polytechnic Institute of New York since 1973. From 1959 to 1969 he taught at Carnegie-Mellon (from 1964 as chairman of the Biotechnol-

ogy Program) and from 1969 to 1973 was dean of engineering, University of Illinois at Chicago Circle.

He has published and lectured widely; coauthored *Noise Pollution—A Sociotechnological Introduction*, *Computer Systems and Water Resources*, and *Technology, the University and the Community*; edited or co-edited *Bioengineering—An Engineering View*, *Women in Engineering*, and *The History and Philosophy of Technology* (in press); and is or has been an editor or advisory board member of *Biorheology*, *American Journal of Cybernetics*, *World Development*, *Annals of Biomedical Engineering*, *Fluid Mechanics—Soviet Research*, *Journal of Hydraulic Research*, *Episteme*, *Philosophy and Technology—An Annual Compilation*, *Environmental Letters*, and *Mechanics Research Communication*.

In 1967 Bugliarello received the Huber Research Prize of the American Society of Civil Engineers, in 1968 was a NATO senior postdoctoral fellow at the Technical University of Berlin, in 1974 was a member of the U.S. Water Resource Delegation to the People's Republic of China, and in 1976 gave the Alza lecture at the Biomedical Engineering Society.

Since 1972 he has been a member of the Board of Science and Technology for International Development (BOSTID) of the National Academy of Sciences and chairman of its Advisory Committee on Technological Innovation, which is concerned with scientific and technological assistance to developing countries. He has been a member of the "Blue Sky Committee" of the NAS World Food and Nutrition Study (1976), consultant to the Chemotherapy Program of the National Cancer Institute (1972-74), and member of the General Medical Research Program—Project Committee (1972-74) and the Biomedical Engineering Training Committee (1966-70) of the National Institutes of Health.

He has been a director of the Biomedical Engineering Society, chairman of the Engineering Mechanics Division of the American Society of Civil Engineers, and a member of the Committee on Education of the National Academy of Engineering.

Dr. Bugliarello's statement: *Science today faces two crucial issues: One, how to assess and control its social, biological and environmental impacts. Two, how to promote its advancement in a period of public disenchantment and apathy, and yet of widening scientific and technological horizons. The AAAS can and must play a vital role in resolving these interrelated questions through intellectual leadership and ethical conviction.*

Eloise E. Clark

Eloise E. Clark, 46 (biology/biochemistry), B.A., Mary Washington College, 1951; Ph.D., University of North Carolina, Chapel Hill, 1958; honorary degree, King College.

Clark assumed her present position as assistant director of the National Science Foundation for biological, behavioral, and social sciences in October 1976. She first came to NSF in 1969 as program director for developmental biology, in 1970 became program director for biophysics, in 1972 was given ex-



panded responsibilities as head of the Molecular Biology Section, and in 1973 was named director of the Biological and Medical Sciences Division. Following the reorganization of NSF in 1975, she served as deputy assistant director for biological, behavioral, and social sciences and also as acting assistant director until her official appointment as assistant director.

Before going to NSF, Clark was an associate professor of biological sciences at Columbia University. During her 10 years there, she taught both undergraduate and graduate courses and sponsored several Ph.D. students. Her research interests were in physical biochemistry of the muscle proteins, particularly actin, and of enzymes. While at Columbia, she carried out research during the summers at the Marine Biological Laboratory, Woods Hole, Massachusetts, and also taught in the physiology course at MBL from 1958 to 1962.

Her postdoctoral work (1957-59) was at Washington University and at the University of California, Berkeley. In 1952-53, she was an instructor at the University of North Carolina, Greensboro.

Clark is a member of a number of professional societies, was secretary of the Society of General Physiology in 1965-67, and has served on the councils of the SGP, 1969-71, American Society of Cell Biology, 1972-75, Biophysical Society, 1975-76, and AAAS, 1969-70. She is a member of Phi Beta Kappa and recipient of the Distinguished Alumnus, Mary Washington College, 1975.

Dr. Clark's statement: *Scientists of today are met with challenges and opportunities that increasingly involve responsibilities beyond the laboratory. The AAAS—representing all sciences—has given strong leadership in meeting these responsibilities through its continued commitment to scientific excellence, effective communication of scientific knowledge, and timely and balanced presentation of science policy issues to the lay public as well as to scientists. Its role in the future will be even greater insofar as wise use of scientific knowledge is applicable to major problems confronting our society.*

Claire Nader

Claire Nader (political science/international relations, science and society), B.A., Smith College; M.A. and Ph.D., Columbia University.

Nader is presently an adviser and consultant on science, technology and public policy. She was an associate director of the Environmental Program at Oak Ridge National Laboratory from 1970 to 1974, taking leave from 1972 to 1974 as guest scholar at the Woodrow Wilson International Center for Scholars. From 1964 to 1970, she was on the research staff at Oak Ridge National Laboratory. Before that she



was associated with the Human Relations Area Files at Yale University, the Center of International Studies at Princeton University, the Council for Atomic Age Studies at Columbia University, and the Science in Society Program at the Oak Ridge Institute of Nuclear Studies.

She is a commissioner of the Commission for the Advancement of Public Interest Organizations and serves as consultant to such organizations as the Office of Technology Assessment, the National Science Foundation's Ethics and Values in Science and Technology Program, and the Oak Ridge National Laboratory's Energy Division.

Her published writings focus on how public needs, scientific developments, and technical initiatives intersect to affect the community interest, with particular attention to the role of specialists, and on instrumentalities to advance the community interest. She was coauthor and editor of *Science and Technology in Developing Countries*, and is on the editorial boards of the *International Studies Quarterly*, of which she was associate editor from 1966 to 1972, and of the Sage Professional Papers in International Studies.

Nader served on the Ad Hoc Committee on a National Environmental Laboratory, Oak Ridge National Laboratory, 1969. She was a member of the Academy for Contemporary Problems, 1973-76, and vice president of the International Studies Association, 1973-74. In 1972 she served as a member of the U.S. Delegation to the Bulgarian National Academy of Sciences Joint Colloquium on National Science Policy. In AAAS, Nader has chaired the Committee on Opportunities in Science and the Panel on Women in Science, and has been a member of the Committee on International Science and of the Committee on Council Affairs. She is currently serving a second term on the AAAS Council.

She has co-organized two international conferences, one on science and technology in developing countries (1969) and one on the design and development of human settlements (1971), as well as a national conference on science, technology, and the public interest (1973).

Dr. Nader's statement: *In my view the business of the AAAS is to advance science for the "benefit and use of life." Achieving this human mission would necessarily engage the intellect, the values and the determination of AAAS members. Public debates are intensifying around what science and what technical applications the public should support. Opportunities for AAAS leadership to help clarify critical social choices have never been greater, or more needed. In this process the AAAS should move systematically to advance our knowledge of social consequences. Its distinctive capability to mobilize and communicate cross-disciplinary knowledge around the problems people face places a unique responsibility on the AAAS to act in the community interest by illuminating our opportunities fully.*

Russell W. Peterson

Russell W. Peterson, 61 (public interest), B.S. (1938) and Ph.D. (1942), University of Wisconsin; D.Sc. (honorary), Williams College, 1975.

Peterson has been president and chief executive officer of New Directions since its establishment in 1976. From 1973 to 1976 he served as chairman of the President's Council on Environmental Quality. He was vice chairman of



the U.S. Delegations to the U.N. World Population Conference in Bucharest, 1974, and the U.N. World Conference on Human Settlements in Vancouver, 1976.

During his administration as Governor of the State of Delaware, 1969-73, Peterson initiated and implemented many innovative measures, including the conversion of a commission form of government to a cabinet form and passage of the Delaware Coastal Zone Act. He was chairman of the National Advisory Commission on Criminal Justice Standards and Goals, of the National Education Commission of the States, Southern States Nuclear Board, and Executive Committee of the National Commission on Critical Choices for Americans.

Peterson was with E. I. DuPont de Nemours & Company from 1942 to 1969, advancing through management assignments in research, production and sales to director of the Development Department's Research and Development Division, which he organized and which was responsible for initiating new business ventures for the company.

Currently he is chairman of the Council on Solar Biofuels; a regional vice-chairman of the National Municipal League; vice-chairman of the Council of Former Governors; a director of the World Wildlife Fund, the U.S. Association of the Club of Rome, and the Population Crisis Committee; and special advisor to the Aspen Institute for Humanistic Studies. He has served as director of the Textile Research Institute and as chairman of Save Our Seas.

Awards received by Peterson include the American Chemical Society's Parsons Award, the National Wildlife Federation's Conservationist-of-the-Year Award, and the World Wildlife Fund's Gold Medal Award. He is a fellow of the American Institute of Chemists and a member of the National Academy of Public Administration, the American Chemical Society, the Federation of American Scientists, and the American Ornithological Union.

Dr. Peterson's statement: *The American Association for the Advancement of Science, while continuing to promote excellence in the traditional scientific method of reducing a complex whole to smaller, simpler, more comprehensible components, is playing a vital role today in furthering the equally important holistic approach to problem solving. By bringing its many disciplines to bear on critical problems in a coordinated and integrated manner, the AAAS can further its important role in serving society.*

Committee on Nominations

The following nominees for membership on the Committee on Nominations are presented by the Committee on Council Affairs.

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

J. Lawrence Apple
William Bevan
Walter R. Hibbard, Jr.
Seymour Martin Lipset
Brown L. Murr
Philleo Nash
F. Joachim Weyl
Fred D. White



J. Lawrence Apple

J. Lawrence Apple, 51 (plant pathology, genetics), B.S. (1949), M.S. (1953), Ph.D. (1955), North Carolina State University.

Apple is assistant director for the biological sciences and international programs at North Carolina State University and professor of plant pathology and genetics. He served as plant pathology adviser and chief-of-party for the North Carolina State University mission to Peru during 1963-67 under a contract with the U.S. Agency for International Development. He is a consultant to the University of California at Berkeley for an international pest management project funded through USAID and has served as a consultant for the U.S. Environmental Protection Agency in the area of pest management.

His research has been directed at the management of soil-borne plant pathogens through the use of host resistance. This research has involved both the interspecific transfer of host resistance into cultivated crop species and the induction of host resistance through use of gamma irradiation. Studies of the ecology of soil-borne pathogens has been an integral part of this work. Major attention in recent years has been given to the philosophical development of the concept of integrated pest management, an ecological approach to the management of the pest complex impinging upon agricultural crops.

Apple is co-editor of *Integrated Pest Management* (1976) and author of a chapter entitled "Theory of Disease Management" in a major advanced treatise now in press. He has studied agricultural and institutional development problems in many developing countries in Central and South America and in Asia. He was a member of the Pest Management Team that visited the Soviet Union in 1973.

He is a member of numerous professional and honorary societies, and was a recipient of the "Research Award" presented by the North Carolina State University Chapter of Sigma Xi. He currently serves as secretary of the AAAS Section on Agriculture (O).

William Bevan

William Bevan, 55 (psychology), A.B., Franklin and Marshall College, 1942; M.A. (1943) and Ph.D. (1948), Duke University; honorary doctorates from three universities.

At present the William Preston Few professor of psychology at Duke University, Bevan, in addition to research and teaching at the undergraduate and graduate levels, serves as the director of Duke University Graduate School's Round Table on Science and Public Affairs and of its postdoctoral training program directed toward preparing behavioral scientists for work in the legislative setting. Before joining the faculty at Duke in 1974, he served for 4 years as executive officer of the AAAS and publisher of *Science*. He was vice president and provost of



the Johns Hopkins University, 1966-70, and professor of psychology, 1966-74. From 1959 through 1966 he was on the faculty of Kansas State University, where he was professor of psychology and successively chairman of psychology, dean of arts and sciences, and vice president for academic affairs. He taught at Emory University, 1948-59, and at Heidelberg College, 1946-48. In 1952-53 he was a Fulbright postdoctoral research scholar at the University of Oslo, and in 1965-66 an NSF senior postdoctoral fellow and a fellow of the Center for Advanced Study in the Behavioral Sciences.

Bevan is the author of numerous papers in the fields of visual perception and psychophysics and in physiological psychology, as well as on science and public affairs. In 1967 he co-edited *Contemporary Approaches to Psychology* with Harry Helson. He is an associate editor of the *American Psychologist*.

He is a fellow of the American Psychological Association and has served as chairman of the Board of the Association for the Advancement of Psychology. He is, or has been, a member of various governing boards and committees, including those of the College Retirement Equities Fund, the APA Insurance Trust, the BioSciences Information Service of Biological Abstracts, the Human Resources Research Organization, the Center for Creative Leadership, Franklin and Marshall College, Associated Universities, Inc., the Triangle Universities Center for Advanced Study, and the National Research Council Committees on Vision, on Bioastronautics, and on Man/Food Systems Interactions.

Bevan currently chairs the American Psychological Foundation and the Behavioral Science Panel of the NRC Committee on a Study of National Needs for Biomedical and Behavioral Research Personnel. He is a member of the AAS-ABA National Conference of Scientists and Lawyers and of the AAAS Committee on Scientific Freedom and Responsibility, and is on visiting committees at Harvard University and the University of Virginia.

Walter R. Hibbard, Jr.

Walter R. Hibbard, Jr., 59 (metallurgy), B.A., Wesleyan University, 1939; Dr. Eng., Yale University, 1942; honorary doctorates, Michigan Technological University and Montana College of Mineral Science and Technology.

Hibbard was appointed a University distinguished professor of the College of Engineering at Virginia Polytechnic Institute and State University in 1974. In the preceding 6 months he served as deputy director and specialist on fossil fuels in the Energy Research and Development Office. From 1968 to 1974, he was vice president of Technical Services in the Owens-Corning Fiberglas Corporation. From 1965 to 1968, as director of the Bureau of Mines, U.S. Department of the Interior, Hibbard was responsible for mining, metallurgy, energy, and health/safety research, as well as for the government's helium production, marketing, and conservation programs.



He was with the General Electric Company at its Research and Development Center from 1951 to 1965, and before that was a member of the Yale University faculty for 12 years. He served as adjunct professor at Rensselaer Polytechnic Institute, 1952-65.

The American Institute of Mining, Metallurgical, and Petroleum Engineers honored Hibbard with the Rossiter W. Raymond Award in 1950 and the James Douglas Gold Medal in 1967. He also received the Yale Engineering Association Award for the Advancement of Science and Engineering in 1959. He is a member of the National Academy of Engineering, a member-at-large of the National Research Council, and a member or fellow of a number of professional societies and fraternities.

Hibbard has contributed more than 70 papers to professional journals and is editor of *Materials and Society*. He is a past president of AIME and of the Metallurgical Society, and served as chairman of the AAAS Section on Engineering (M) in 1976 and as a member of the AAAS Council from 1969 to 1975. He has chaired the Building Research Advisory Board, NRC, and the Materials Advisory Board, NRC/NAS, and has served on a number of committees, including the Commission on Socio-Technical Systems, NRC, Committee on Public Engineering Policy, NAE, and visiting committees to ten universities. He is currently a member of the Board of Directors of the Norton Company.

Seymour Martin Lipset

Seymour Martin Lipset, 55 (political science and sociology), B.S., City College of New York, 1943; Ph.D., Columbia University, 1949.

Lipset has been professor of political science and sociology, and senior fellow of the Hoover Institution, Stanford University, since 1975.

Before that he was the George D. Markham professor of government and sociology at Harvard University. He taught from 1948 to 1950 at the University of California, Berkeley, where he was also the director of the Institute of International Studies, and from 1950 to 1956 at Columbia University. He has taught abroad for various periods at Berlin, Jerusalem, Kyoto, Salzburg, Toronto, and Warsaw. Lipset was a fellow at the Center for Advanced Study in the Behavioral Sciences in 1956-57 and 1972-73. He has also held fellowships from the Social Science Research Council and the Guggenheim and Ford Foundations.

Books authored or co-authored by Lipset include *Agrarian Socialism*, 1950; *Union Democracy*, 1956; *Social Mobility in Industrial Society*, 1959; *Political Man*, 1960; *The First New Nation*, 1963; *Revolution and Counter-revolution*, 1968; *The Politics of Unreason*, 1970; *Rebellion in the University*, 1972; *The Divided Academy*, 1975; and *Education and Politics at Harvard*, 1975. He received the MacIver Award for Political Man and the Gunnar Myrdal Prize for *The Politics of Unreason*. He was given a Townsend Harris Medal by City College of New York.

Lipset is a member of the National Academy of Sciences, the American Academy of



Arts and Sciences, and the National Academy of Education, and a foreign member of the Finnish Academy of Sciences. He is currently a vice president of the American Academy and a member of the board of editors of the *NAS Proceedings* and numerous other scholarly publications. He is a fellow of the AAAS and served as chairman of the Section on Social and Economic Sciences in 1975. He has also served as a member of the Councils of the American Political Science Association and the American Sociological Association.

Brown L. Murr

Brown L. Murr, 46 (physical organic chemistry), B.A. (1952) and M.S. (1953), Emory University; Ph.D., Indiana University, 1961.

Currently a visiting scientist in the Department of Embryology, Carnegie Institution of Washington, Murr has been professor of chemistry at the Johns Hopkins University since 1971. He joined the Hopkins faculty as assistant professor in 1962, was associate professor from 1967 to 1970 and department chairman from 1973 to 1976, and has served on numerous university committees. He was a National Science Foundation postdoctoral fellow at Massachusetts Institute of Technology from 1961 to 1962. Before beginning his doctoral education he was in the military service from 1954 to 1956, serving as a chemist at the Natick Laboratories, U.S. Army Quartermaster Research and Development Command.

Murr's research interests are in the area of physical organic chemistry, kinetics, mechanism, and stereochemistry. He has been a member of the AAAS, the American Chemical Society, the Chemical Society (London), Sigma Xi, Phi Lambda Upsilon, and the New York Academy of Sciences.



Philleo Nash

Philleo Nash, 67 (anthropology), A.B., University of Wisconsin, 1932; Ph.D., University of Chicago, 1937.

Since 1973, Nash has been professor of anthropology at the American University. This year he is also director of the University Learning Center, an alternative, open-classroom approach to higher education. Before coming to American University as an adjunct professor in 1971, he was a consulting anthropologist specializing in economic development. This followed a 5-year tour as U.S. commissioner of Indian affairs. Before that, Nash served one term as lieutenant governor of Wisconsin. During the Truman Administration, he held several positions in the White House. He spent the World War II years in the Office of War Information, was special consultant to the Secretary of War in 1943, and for 3 years served as White House liaison for race tension analysis.

Nash is a member of the American Anthropological Association (treasurer, 1968-70); Society for Applied Anthropology (president,



1972-73); Anthropological Society of Washington (president, 1975-76). He was on the AAAS Council in 1972-73 and is currently secretary of the Section on Anthropology (H).

His scientific publications include *The Excavation of Ross Mound Group I* (*Bulletin of the Milwaukee Public Museum*, 1931); *Religious Revivalism on Klamath Indian Reservation* (in *Social Anthropology of North American Tribes*, 1937, 1953). He is author, co-author, or editor of numerous government publications, including *Final Report, Fair Employment Practice Committee*, 1945; *Leadership and the Negro Soldier*, 1943; *Enemy Japan*, 1945; and *Report of the President's Committee on Civil Rights*, 1948.

Nash traveled in India in 1966 under the American Specialist Program of the U.S. Department of State. He received the Faculty Award from the University of Wisconsin-Green Bay in 1973.

F. Joachim Weyl

F. Joachim Weyl, 62 (mathematics), B.A., Swarthmore College, 1935; M.A. (1937) and Ph.D. (1939), Princeton University.

Weyl has been dean of sciences and mathematics at Hunter College, City University of New York, since 1968, except for an interruption of several months as acting president of the College, 1969-70. He began his career as an instructor at the University of Maryland, 1939-40, subsequently taught at Indiana University, and served in the U.S. Navy Department during World War II. He held a variety of positions in the Office of Naval Research from 1947 to 1960 and was chief scientist and deputy chief of naval research from 1960 to 1966.

Released at various times for duty elsewhere in the federal government, Weyl was assistant director of defense research and engineering (research) in 1962 and research director and science advisor of the Agency for International Development, 1963-64. In 1964 he directed one of the defense-technological summer studies (Project SEABED), exploring the development of technological bases to assure the effective evolution of sea-based strategic weapon systems of the future. From 1966 to 1968, as special assistant to the president of the National Academy of Sciences, his principal assignment was the direction of a joint NAS/NAE Committee on Scientific and Technical Communication (Project SAT-COM).

Weyl holds the U.S. Navy Distinguished Civilian Service Award, the Distinguished Civilian Service Award of the Department of Defense, and the National Civil Service Award. He was a member of the Board of Directors of Sigma Xi, 1974-76, and chaired the Society's Committee on Lectureships. He is a past president of the Society for Industrial and Applied Mathematics and has been a member of its Board of Trustees since 1967. He served on the AAAS Council, 1968-73, and on the Electorate Nominating Committee of the Section on Mathematics (A), 1974-75.



Fred D. White

Fred D. White, 58 (meteorology), A.B., Miami University, 1941; Ph.D., University of Wisconsin, 1963.

Now retired from the federal government, White does some consulting work. Prior to his retirement in 1976, he had served as head of atmospheric sciences, National Science Foundation, since 1958. From 1946 to 1958, he was on the staff of the U.S. Weather Bureau (now NOAA). During World War II, he served with the Air Weather Service, U.S. Air Force.

White is a fellow of the American Meteorological Society and has served as a member of the AMS Council and as chairman of the AMS Membership Commission. He is also a fellow of the American Geophysical Society. He was chairman of the AAAS Section on Atmospheric and Hydrospheric Sciences (W) in 1976, and is a fellow of AAAS.



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 1977 elections, the electorates of Sections Q through X will do so.

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

Section A—Mathematics

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

Garrett Birkhoff
Burton H. Colvin

Garrett Birkhoff (mathematics), 1911; A.B., Harvard University, 1932; honorary Dr., National University of Mexico, 1951, University of Lille, France, 1959, Case Institute of Technology, 1964; instructor to associate professor, Harvard University, 1936–47, professor, 1947–69, Putnam professor of pure and applied mathematics, 1969–; lecturer, University of Washington, University of Cincinnati, 1947; visiting lecturer, National University of Mexico, 1945, 1958; Guggenheim fellow, 1948; National Academy of Sciences; vice president, American Mathematical Society, 1958–59, American Academy of Arts and Sciences, 1966–67, Mathematical Association of America, 1970–71; president, Society for Industrial and Applied Mathematics, 1967–68; chairman, Conference Board of the Mathematical Sciences, 1969–70; algebra; differential equations; fluid mechanics; scientific computing.

Burton H. Colvin (applied mathematics), 1916; A.B., Brown University, 1938, A.M., 1939; Ph.D., University of Wisconsin, 1943; instructor to assistant professor, University of Wisconsin, 1943–51; Applied Mathematics Panel, National Defense Research Committee, Office of Scientific Research and Development, 1944–45; consulting mathematician and supervisor, Mathematical Analysis, Physical Research Staff, Boeing Company, 1951–58, head, Mathematics Research Laboratory, Scientific Research Laboratories, 1959–70, head, Mathematical and Information Sciences Laboratory, 1970–72; chief, Applied Mathematics Division, National Bureau of Standards, 1972–; Board of Trustees, Society for Industrial and Applied Mathematics, 1962–65, 1967–70, president, 1971–72; member-at-large, Section Committee, Section on Mathematics, AAAS, 1965–68, Council, 1966–68, Commission on Science Education, 1966–71, vice chairman, 1968–71; Council, Conference Board of the Mathematical Sciences, 1964, 1970–74, chairman, CBMS, 1975–76; Committee on New Priorities for Undergraduate Education in the Mathematical Sciences, Mathematical Association of America, 1974–75; Council of Scientific Society Presidents, 1975–77; Committee on Mathematical Models as Used in Government Policy Decisions, American Mathematical Society, 1976–77; applied mathematics.

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

R. Creighton Buck
Victor Twersky

R. Creighton Buck (mathematics), 1920; B.A., University of Cincinnati, 1941, M.A., 1942; Ph.D., Harvard University, 1947; assistant professor, Brown University, 1947–50; associate professor, University of Wisconsin, 1950–54, professor, 1954–, department chairman, 1964–66, acting director, Mathematics Research Center, 1973–75; Guggenheim fellow, 1958–59; visiting professor, Stanford University, 1958–59; Mathematics Division, National Research Council, 1961–64; U.S. Commission on Mathematics Instruction, 1963–67; Mathematics Advisory Panel, NSF, 1965–70; Advisory Board, School Mathematics Study Group, 1966–69; vice president, American Mathematical Society, 1972–74, Mathematical Association of America, 1976–77; analysis, especially approximation theory; peripheral interests in history of mathematics and mathematics education.

Victor Twersky (mathematical physics), 1923; B.S., City College of New York, 1947; A.M., Columbia University, 1948; Ph.D., New York University, 1950; research associate and senior research scientist, New York University Mathematics Research Group, Courant Institute, 1950–53, 1963; engineering specialist to head of research and senior scientist, Electronic Defense Laboratories and Electronic Systems-West, Sylvania-GTE, 1953–66; professor, University of Illinois, Chicago Circle, 1966–; visiting professor, Stanford University, 1972–73, Hebrew University, 1972; Guggenheim fellow, 1972–73; U.S. Commission VI and B, International Union of Radio Science, 1955–; Board of Directors, Optical Society of America, 1961; member-at-large, Conference Board of the Mathematical Sciences, 1975–77; scattering theory; multiple scattering of waves; propagation in random media; radiative diagnostics in biomedicine; mathematical biophysics; applications-oriented analysis.

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

Bernard Altshuler
William E. Boyce
Anneli Lax
Daniel Zelinsky

Bernard Altshuler (mathematics), 1919; B.S., Lehigh University, 1940; Ph.D., New York University, 1953; instructor to associate professor, New York University Medical Center, 1951–69, professor and associate director, Institute of Environmental Medicine 1969–; biomathematics; environmental health; aerosol science; carcinogenesis.

William E. Boyce (applied mathematics), 1930; B.A., Southwestern at Memphis, 1951; M.S., Carnegie Institute of Technology, 1953, Ph.D., 1955; postdoctoral fellow, Brown University, 1955–77; assistant to associate professor, Rensselaer Polytechnic Institute, 1957–63, professor, 1963–; managing editor, *SIAM Review*, 1970–; visiting lecturer, Society for Industrial and Applied Mathematics, 1973–74, Council, 1975–77; random differential equations and their applications; boundary and eigenvalue problems.

Anneli Lax (mathematics), 1922; B.S., Adelphi College, 1942; M.A., New York University, 1945, Ph.D., 1955; various positions, New York University, 1943–61, assistant to associate professor, 1961–72, professor, 1972–; editor, New Mathematical Library Series, School Mathematics Study Group, 1958–68; executive editor, New Mathematical Library Series, Mathematical Association of America, 1975–, Committee on *Mathematical World*, 1976–; analysis: hyperbolic partial differential equations.

Daniel Zelinsky (mathematics), 1922; S.B., University of Chicago, 1939, S.M., 1941, Ph.D., 1946; instructor, University of Chicago, 1943–44, 1946–47; assistant, Applied Mathematics Group, Columbia University, 1944–45; NRC 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, 1956–57; editor, *Transactions*, American Mathematical Society, 1961–67, Committee on Communications, 1965–70, chairman, 1965–66; Executive Committee of Council, AMS, 1966–67; Executive Committee, Division of Mathematics, NRC, 1964–; ring theory, especially cohomology theory; Galois theory.

Section B—Physics

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

H. Richard Crane
Arthur L. Schawlow

H. Richard Crane (physics), 1907; B.S., California Institute of Technology, 1930, Ph.D., 1934; research fellow, California Institute of Technology, 1934–35; instructor to professor, University of Michigan, 1935–72, University professor, 1972–; Davison-Germer Prize, American Physical Society, 1967; Oersted Medal, American Association of Physics Teachers, 1977; member-at-large, Section Committee, Section on Physics, AAAS, 1960–63; president, AAPT, 1965–66; chairman, Board of Governors, American Institute of Physics, 1971–75; nuclear physics; accelerators; physical constants (anomalous

magnetic moment of free electron); geomagnetism; physics education.

Arthur L. Schawlow (physics), 1921; B.A., University of Toronto, 1941, M.A., 1942, Ph.D., 1949; fellow and research associate, Columbia University, 1949-51; research physicist, Bell Telephone Laboratories, 1951-61; professor, Stanford University, 1961-, department chairman, 1966-70; visiting associate professor, Columbia University, 1960; Ballantine Medal, Franklin Institute, 1962; Thomas Young Medal and Prize, American Institute of Physics, 1963; Liebmans Prize, Institute of Electrical and Electronics Engineers, 1964; California Scientist of the Year, 1973; Geoffrey Frew fellowship, Australian Academy of Science, 1973; Ives Medal, Optical Society of America, 1976; Marconi international fellowship, 1977; Council, American Physical Society, 1966-69, chairman, Division of Electron and Atomic Physics, 1974; director, Optical Society of America, 1966-68, 1974-76, president, 1975; research on lasers and their applications to physics of atoms and molecules, most especially high-resolution laser spectroscopy.

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

A. M. Clogston
Enid Keil Sichel

A. M. Clogston (physics), 1917; B.S., Massachusetts Institute of Technology, 1938, Ph.D., 1941; teaching fellow, M.I.T., 1938-41, head, Magnetron Research Group, Radiation Laboratory, 1941-46; technical staff, Bell Telephone Laboratories, 1946-52, head, Electronics Research Department, 1952-53, Physics of Solids Department, 1953-63, assistant metallurgical director, 1963-65, director, Physical Research Laboratory, 1965-71, executive director, Research, Physics, and Academic Affairs Division, 1973-; vice president, Research, Sandia Laboratories, 1971-73; National Academy of Sciences; Committee on Physics and Society, American Institute of Physics, 1967-72, Committee on Professional Concerns, 1976-; Committee on Applications of Physics, American Physical Society, 1975-, chairman, 1975, Physics Manpower Panel, 1976-; Advisory Board to the Office of Physical Sciences, NAS, 1975-, Committee on Education and Employment of Minority Group Members in Science, 1976-, Committee on Science and Public Policy, 1976-; Science Policy Board, Stanford Synchrotron Radiation Project, 1976-; solid state physics, particularly in the fields of magnetism and superconductivity; ferromagnetic resonance; optical absorption of solids; nuclear magnetic resonance in transition metal compounds; high transition temperature superconductors; localized magnetic moments in metals.

Enid Keil Sichel (physics), 1946; A.B., Smith College, 1967; Ph.D., Rutgers University, 1971; visiting scientist, Francis Bitter National Magnet Laboratory, Massachusetts Institute of Technology, 1970-71; post-doctoral fellow, Rutgers University, 1971-73; technical staff, David Sarnoff Research Center, RCA Laboratories, 1973-; thermal properties of solids; transport and optical properties of thin solid films.

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

Ann C. Birge
Joseph A. Giordmaine
Donald N. Langenberg
P. James E. Peebles

Ann C. Birge (physics), 1925; A.B., Vassar College, 1946; A.M., Harvard University, 1947, Ph.D., 1951; research physicist, Donner Laboratory, University of California, Berkeley, 1951-59, consultant, 1959-62, lecturer, Radiation Biology Institutes for High School Teachers, 1963-65; associate professor, California State University, Hayward, 1965-75, professor, 1975-; Mary Richardson and Lydia P. Babbott fellowship, 1946-47; study of the effects of ionizing radiation on living systems, with special emphasis on radiations of high specific ionization.

Joseph A. Giordmaine (physics), 1933; B.A., University of Toronto, 1955; A.M., Columbia University, 1957, Ph.D., 1960; instructor, Columbia University, 1959-61; technical staff, Physics Research, Bell Telephone Laboratories, 1961-74, head, Solid State Spectroscopy Research, 1967-71, director, Chemical Physics Research, 1971-74, Solid State Electronics Research, 1974-; visiting professor, Munich Technical University, 1966; Advisory Committee on Basic Research, NAS-NRC, 1967-72, Committee on Atomic and Molecular Physics, 1971-74; Nominating Committee, American Physical Society, 1973-74; AIP-IEEE Joint Council on Quantum Electronics, 1973-78; chairman, Award Committees, Optical Society of America, 1975-76, associate editor, *Optics Letters*, 1977-79; quantum electronics; optical properties of solids; nonlinear optics.

Donald N. Langenberg (solid state physics), 1932; B.S., Iowa State University, 1953; M.S., University of California, Los Angeles, 1955; Ph.D., University of California, Berkeley, 1959; acting instructor, University of California, Berkeley, 1958-59; assistant to associate professor, University of Pennsylvania, 1960-67, professor, 1967-; NSF fellow, 1956-60; Sloan fellow, 1962-64; Guggenheim fellow, 1966-67; John Price Wetherill Medal, Franklin Institute, 1975; vice chairman, Division of Solid State Physics, American Physical Society, 1977; solid state physics; low temperature physics; superconductivity; Josephson effects.

P. James E. Peebles (astrophysics), 1935; B.Sc., University of Manitoba, 1958; Ph.D., Princeton University, 1962; instructor, Princeton University, 1961-62, research associate to research staff member, 1962-65, assistant to associate professor, 1965-72, professor, 1972-; cosmology.

Section C-Chemistry

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

Fred Basolo
H. S. Gutowsky

Fred Basolo (chemistry), 1920; B.Ed., Southern Illinois University, 1940; M.S., University of Illinois, 1942, Ph.D., 1943; teaching assistant and fellow, University of Illinois, 1940-43; research chemist, Rohm and Haas, 1943-46; instructor to associate professor, Northwestern University, 1946-59, professor, 1959-; Guggenheim fellow, 1954-55; NATO visiting professor, West Germany, 1969; Award in Inorganic Chemistry, American Chemical Society, 1964, North Regional Sections' Award in Inorganic Chemistry, 1971, Award for Distinguished Service in Inorganic Chemistry, 1975; Bailar Medal, 1972; Southern Illinois Alumni Achievement Award, 1974; chairman, Division of Inorganic Chemistry, ACS, 1970; Council and Board of

Trustees, Gordon Research Conferences; Editorial Boards, *Accounts in Chemical Research*, *Inorganic Chemistry*, *Inorganica Chimica Acta*, *Coordination Chemistry Reviews*, *Inorganic Syntheses*, *Journal of Inorganic and Nuclear Chemistry*, *Inorganic and Nuclear Chemistry Letters*, *Bioinorganic Chemistry*, *Journal of Molecular Catalysis*; National Council, International Union of Pure and Applied Chemistry; inorganic chemistry; syntheses and reaction mechanism of coordination compounds; synthetic oxygen carriers.

H. S. Gutowsky (chemistry), 1919; A.B., Indiana University, 1940; M.S., University of California, Berkeley, 1946; Ph.D., Harvard University, 1949; instructor to associate professor, University of Illinois, Urbana, 1948-56, professor, 1956-, head, Physical Chemistry Division, 1956-62, head, Department of Chemistry and Chemical Engineering, 1967-70, head, Department of Chemistry, and director, School of Chemical Sciences, 1970-; Guggenheim fellow, 1954-55; Irving Langmuir Award in Chemical Physics, American Chemical Society, 1966, Midwest Award, St. Louis Section, 1973, Peter Debye Award in Physical Chemistry, 1975; American Academy of Arts and Sciences, 1969; International Society of Magnetic Resonance Prize, 1974; chairman, Chemistry Panel, NSF, 1965-66, Advisory Committee on Planning, 1971-74, Waterman Award Committee, 1977-; chairman, Division of Physical Chemistry, ACS, 1966, Council, 1969-, Committee on Professional Training, 1969-, chairman, 1974-, Committee on Nominations and Elections, 1971-76; Board of Trustees, Gordon Research Conferences, 1969-72, chairman, 1971-72; Committee on Science and Public Policy, NAS, 1972-75, chairman, Panel on Atmospheric Chemistry, 1975-76, Committee on Impacts of Stratospheric Change, 1975-76; Council, AAAS, 1971-72, 1977-79, Editorial Board, *Science*, 1972-77, member-at-large, Section Committee, Section on Chemistry, 1975-78; chairman, Division of Chemical Physics, American Physical Society, 1973; molecular and solid state structure; nuclear magnetic resonance.

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

Sidney W. Benson
Robert S. Hansen

Sidney W. Benson (chemistry), 1918; A.B., Columbia College, 1938; A.M., Ph.D., Harvard University, 1941; instructor, College of the City of New York, 1942-43; assistant to associate professor, University of Southern California, 1943-51, professor, 1951-63, 1976-; chairman, Department of Kinetics and Thermochemistry, Stanford Research Institute, 1963-76; visiting professor, University of Paris, 1971-72; Guggenheim fellow and Fulbright fellow, 1950-51; Award in Petroleum Chemistry, American Chemical Society, 1977; Committee on Kinetics of Chemical Reactions, NAS-NRC, 1965-74, chairman, 1969; member-at-large, Gordon Research Conferences, 1968-71; Organic Solvents Advisory Committee, National Air Pollution Control Administration, 1969-72; chairman, CODATA Task Group on Data for Chemical Kinetics, International Council of Scientific Unions, 1969-75; Advisory Panel on Physical Chemistry, National Bureau of Standards, 1969-72, chairman, 1970-71; Committee on Motor Vehicle Emissions, NAS, 1971-74; Air Force Scientific Panel on New Chemical Lasers, 1972; Editorial Advisory Board, *Com-*

bustion Science and Technology, 1973–; chemical kinetics; combustion; air pollution; atmospheric chemistry.

Robert S. Hansen (chemistry), 1918; B.S., University of Michigan, 1940, M.S., 1941, Ph.D., 1948; assistant to associate professor, Iowa State University, 1948–55, professor, 1955–, department chairman, 1965–68, director, Energy and Mineral Resources Research Institute; associate chemist, Ames Laboratory-USERDA, 1948–55, senior chemist, 1955–, chief, Chemistry Division, 1965–68, director of laboratory, 1968–; Kendall Award in Colloid Chemistry, American Chemical Society, 1966; Centennial Citation Award, Iowa Academy of Sciences, 1975; secretary-treasurer, Division of Colloid and Surface Chemistry, ACS, 1951–55, chairman, 1977; surface chemistry, especially physical adsorption from solution and catalytic reactions on clean metal surfaces.

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

Roger G. Bates
Rodney N. Hader
H. Harry Szmant
Elizabeth K. Weisburger

Roger G. Bates (chemistry), 1912; B.S., University of Massachusetts, 1934; M.A., Duke University, 1936, Ph.D., 1937; research chemist, National Bureau of Standards, 1939–58, chief, Electrochemical Analysis Section, and assistant chief, Analytical Chemistry Division, 1958–69; professor, University of Florida, 1969–; Sterling postdoctoral fellow, 1937–39; NIH special fellow, 1953–54; Hillbrand Prize, Washington Section, American Chemical Society, 1955; Gold Medal for Exceptional Service, U.S. Department of Commerce, 1957; Fisher Award in Analytical Chemistry, ACS, 1969; Commission on Symbols, Terminology, and Units, International Union of Pure and Applied Chemistry, 1963–71, Commission on Electrochemistry, 1965–69, chairman, Commission on Electroanalytical Chemistry, 1971–; AAAS representative, American Standards Association Sectional Committees on Letter Symbols and on Abbreviations for Science and Engineering (Y1 and Y10), 1968–70; Editorial Boards, *Analytical Chemistry*, *Chemical & Engineering News*, *Analytica Chimica Acta*, *Bulletin des Societes Chimiques Belges*; solution chemistry of electrolytes; pH measurement; ion-selective electrodes.

Rodney N. Hader (chemical engineering), 1922; B.S., University of Illinois, 1944; editor, *Journal of Agricultural & Food Chemistry*, American Chemical Society, 1956–65, executive assistant to the director of publications, 1962–70, executive assistant to the executive director of ACS, 1972–, secretary, ACS, 1977–; Board of Trustees, Group Insurance Plans for ACS Members; Committee on Pensions, ACS, secretary to Board of Directors, Council, Board Executive Committee, and Council Policy Committee.

H. Harry Szmant (chemistry), 1918; B.A., Ohio State University, 1940; Ph.D., Purdue University, 1944; research chemist, Monsanto Chemical Company, 1944–46; associate professor to professor, Duquesne University, 1946–56; professor and director, Center of Chemical Research, University of Oriente, Cuba, 1956–60; professor, University of Puerto Rico, and head, Physical Science Division, P. R. Nuclear Center, 1961–68; profes-

sor and department chairman, University of Detroit, 1968–, associate dean for science, 1976–; Leonardo Igaravidez Award, Puerto Rico Section, American Chemical Society, 1976; chairman, Organic Division, Pittsburgh Section, ACS, 1955–56; chairman, Puerto Rico Section, ACS, 1964, Council, 1965–68; treasurer, Detroit Section, ACS, 1971, chairman, 1973, Council, 1975–, Public Relations Committee, 1976; International Activities Committee, ACS, 1977; physical-organic chemistry; liquid structure and solvent effects; chemistry of organic sulfur compounds and carbohydrates.

Elizabeth K. Weisburger (toxicology, carcinogenesis), 1924; B.S., Lebanon Valley College, 1944; Ph.D., University of Cincinnati, 1947; research associate, University of Cincinnati, 1947–49; postdoctoral research fellow, National Cancer Institute, 1949–51, research organic chemist, Laboratory of Biochemistry, 1951–61, Carcinogen Screening Section, 1961–73, acting head, 1972–73, chief, Carcinogen Metabolism and Toxicology Branch, 1973–; Meritorious Service Medal, U.S. Public Health Service, 1973; abstractor, *Chemical Abstracts*, 1949–72; served on various committees and boards of the Chemical Society of Washington, 1952–77; Board of Trustees, Lebanon Valley College, 1970–; Editorial Boards, *Cancer Research* and *Excerpta-Medica-Cancer*; assistant editor-in-chief, *Journal of the National Cancer Institute*; served on numerous committees and boards, National Cancer Institute; organic chemistry; metabolism of foreign compounds; bioassay; structure-activity relationships in carcinogenesis; toxicology.

Section D—Astronomy

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

Peter S. Conti
Benjamin F. Peery, Jr.

Peter S. Conti (astronomy), 1932; B.S., Rensselaer Polytechnic Institute, 1956; Ph.D., University of California, Berkeley, 1963; postdoctoral research fellow, Hale Observatories, California Institute of Technology, 1963–66; assistant astronomer to professor, Lick Observatory, University of California, Santa Cruz, 1966–71; professor of astro-physics, University of Colorado, 1971–; visiting professor (Fulbright), University of Utrecht, 1969–70; Gold Medal, University of Liege, 1975; Board of Directors, Association of Universities for Research in Astronomy, Inc.; stellar winds and mass loss problems in very young, hot, luminous stars.

Benjamin F. Peery, Jr. (astronomy), 1922; B. Physics, University of Minnesota, 1949; Ph.D., University of Michigan, 1962; predoctoral instructor, University of Michigan, 1958; instructor to professor, Indiana University, 1959–76; professor of physics and astronomy, Howard University, 1977–; visiting associate, California Institute of Technology, 1969–70; visiting resident astronomer, Kitt Peak National Observatory, 1975–76; Committee on Education in Astronomy, American Astronomical Society, 1962–70, chairman, Committee on Manpower and Employment, 1977–; U.S. National Committee, International Astronomical Union, 1972–77; member-at-large, Section on Astronomy, AAAS, 1974–77; astronomical spectroscopy; nucleosynthesis; chemical history of the galaxy.

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

Michael J. S. Belton
William M. Irvine

Michael J. S. Belton (astronomy), 1934; B.Sc., University of St. Andrews, 1959; Ph.D., University of California, Berkeley, 1964; astronomer, Kitt Peak National Observatory, 1964–; Lick fellow, 1962–63; NASA Public Service Group Achievement Award, 1974; Commission 16, International Astronomical Union, 1967–, Commission 16 Organizing Committee, 1976–79; Nominating Committee, Division of Planetary Sciences, American Astronomical Society, 1971–73; theoretical and observational high resolution planetary spectroscopy; dynamics of planetary atmospheres; small particles in the solar system; comets.

William M. Irvine (astronomy), 1936; B.A., Pomona College, 1957; M.A., Harvard University, 1959, Ph.D., 1961; research fellow, Harvard College Observatory, and physicist, Smithsonian Astrophysical Observatory, 1962–66; lecturer, Harvard University, 1964–66; associate professor, University of Massachusetts, 1966–68, professor, 1968–, chairman, Five College Astronomy Department, 1966–; NATO fellow, Holland, 1961–62; International Research and Exchanges Board fellow, Sweden, 1973–74; chairman, Division for Planetary Sciences, American Astronomical Society, 1973–74; Commission 16, International Astronomical Union; Electorate Nominating Committee, Section on Astronomy, AAAS, 1974–76, chairman, 1975; Editorial Board, *Icarus*, 1975–76, associate editor, 1976–; Board of Trustees, Northeast Radio Observatory Corporation, 1976–; light scattering and radiative transfer in planetary atmospheres; planetary photometry; radio astronomy of the interstellar medium.

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

Clark R. Chapman
M. H. Cohen
Otto G. Franz
George Wallerstein

Clark R. Chapman (planetary astronomy), 1945; A.B., Harvard College, 1967; M.S., Massachusetts Institute of Technology, 1968, Ph.D., 1972; research assistant, Smithsonian Astrophysical Observatory, 1965–66; research staff, Haystack Radar Facility and Departments of Earth and Planetary Sciences and Meteorology, MIT, 1966–71; research scientist, IIT Research Institute, 1971–72; research scientist, Planetary Science Institute, 1972–; chairman, Publications Subcommittee, Division for Planetary Sciences, American Astronomical Society, 1971–74, chairman, Program Subcommittee, 1976–77, chairman, Nominating Committee, 1977; Lunar and Planetary Science Council, Universities Space Research Association, 1975–; Organizing Committee, Commission 15, International Astronomical Union, 1976–; associate editor, *Journal of Geophysical Research*, 1976–; Editorial Board, *Icarus*, 1978–; accretion of planetesimals, growth of planets; cratering, impact-erosional processes, and regolith development; physical studies of small bodies in solar system; visible and near-infrared spectrophotometry of planets, satellites, and asteroids; Jupiter's atmospheric circulation; analysis of telescopic and space-

craft imagery of planetary atmospheres and surfaces.

M. H. Cohen (radio astronomy), 1926; B.E.E., Ohio State University, 1948, M.Sc., 1949, Ph.D., 1952; assistant to associate professor, Cornell University, 1954-66; professor, University of California, San Diego, 1966-68; professor, California Institute of Technology, 1968-; Guggenheim fellow, 1960-61; Rumford Medal, American Academy of Arts and Sciences, 1971; Board of Directors, Astronomical Society of the Pacific, 1969-72; chairman, Commission V, U.S. National Committee, URSI, 1970-73; Council, AAAS, 1971-72, Section Committee, Section on Astronomy, 1971-72; extragalactic astronomy; long-baseline interferometry.

Otto G. Franz (astronomy), 1931; Ph.D., Vienna University, 1955; research and teaching assistant, Vienna University Observatory, 1953-55; research associate, Dearborn Observatory, Northwestern University, 1955-58; astronomer, U.S. Naval Observatory, 1958-65; astronomer, Lowell Observatory, 1965-; adjunct professor, Ohio State University, 1968-; vice president, Commission 26, "Double Stars," International Astronomical Union, 1976-; photometry and astrometry of double stars; photometric investigation of planets and satellites.

George Wallerstein (astronomy), 1930; B.A., Brown University, 1951; Ph.D., California Institute of Technology, 1958; instructor to associate professor, University of California, Berkeley, 1958-65; professor and department chairman, University of Washington, 1965-; Council, American Astronomical Society, 1968-71; Board of Trustees, Astronomical Society of the Pacific, 1974-77; stellar spectroscopy; stellar evolution; chemical composition of stars and interstellar gas.

Section E-Geology and Geography

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

William W. Hay
Linn Hoover

William W. Hay (micropaleontology, biostratigraphy), 1934; B.S., Southern Methodist University, 1955; M.S., University of Illinois, 1958; Ph.D., Stanford University, 1960; assistant professor to professor, University of Illinois, 1960-73; adjunct professor, University of Miami, 1967-68, professor, 1968-, chairman, Division of Marine Geology and Geophysics, 1974-76, dean, Rosenstiel School of Marine and Atmospheric Science, 1977-; NSF postdoctoral fellow, 1959-60; Leopold von Buch Plakette, Deutsche Geologische Gesellschaft, 1976; associate editor, *Journal of Foraminiferal Research*, 1970-73; Ad Hoc Committee on Revision and Updating Stratigraphic Correlation Charts of North America, American Association of Petroleum Geologists, 1973-; Publications Committee, Society of Economic Paleontologists and Mineralogists, 1973-76; Editorial Board, *Marine Geology*, 1975-; American Commission on Stratigraphic Nomenclature, 1975-78; Ocean Sciences Board, 1977-80; U.S. National Committee, Special Committee on Oceanic Research, 1977-83; taxonomy and biostratigraphy of coccoliths; scanning electron microscopy; probability in stratigraphy and ecology; skeletal ultrastructure; geological mass balance for the ocean sedimentation system.

Linn Hoover (geology), 1923; A.B., University of North Carolina, 1948; M.A., University of Michigan, 1951; Ph.D., University of California, Berkeley, 1959; geologist, U.S. Geological Survey, 1948-60; executive secretary, Division of Earth Sciences, National Research Council, 1960-63; executive director, American Geological Institute, 1963-74; deputy for coal resources, Office of Energy Resources, U.S. Geological Survey, 1974-76, deputy chief, Office of Energy Resources, 1976-; Parker Memorial Medal, American Institute of Professional Geologists, 1975; Council, AAAS, 1971-73, Section Committees, Sections on Geology and Geography and Atmospheric and Hydrospheric Sciences, 1971-73, Electorate Nominating Committee, Section E, 1974-75, chairman, 1975; vice president, Geological Society of Washington, 1972; geology of mineral fuels; energy resources.

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

William W. Hambleton
Dorothy B. Vitaliano

William W. Hambleton (geology), 1921; B.S., Franklin & Marshall College, 1943; M.S., Northwestern University, 1947; Ph.D., University of Kansas, 1951; geologist, Pennsylvania Geological Survey, 1946, 1951; chemical petrographer, U.S. Bureau of Mines, 1949; instructor to associate professor, University of Kansas, 1949-62, 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, 1956-70, director, 1970-; Shell fellow, 1950-51; visiting scientist, Lamont Geological Observatory, 1959-60; Research Committee, Interstate Oil Compact Commission, 1972-; chairman, Kansas Committee to Midwest Governors' Task Force on Energy, 1973-; Mineral Resources Committee, National Association of State Universities and Land-Grant Colleges, 1974-; Executive Advisory Committee, National Gas Survey, Federal Power Commission, 1975; Committee on Stratigraphic Correlation, American Association of Petroleum Geologists, 1975-; vice chairman, Energy Advisory Council, Kansas Energy Office, 1976-; chairman, Geology Review Board to ERDA on Disposal of Nuclear Wastes, Association of American State Geologists, 1977-; research and development management; gravity and magnetism; mineral economics.

Dorothy B. Vitaliano (geology), 1916; A.B., Barnard College, 1936; A.M., Columbia University, 1938, M.Phil., 1973; assistant, Barnard College, 1936-39; geologic field assistant, U.S. Geological Survey, Bloomington, Indiana, 1942-43, geologist, 1953-; INQUA Commission on Tephrochronology, 1974-; archaeological geology; tephrochronology; "geomorphology"; volcanology.

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

Wakefield Dort, Jr.
George C. Hardin, Jr.
Daniel F. Merriam
William A. Oliver, Jr.

Wakefield Dort, Jr. (quaternary geology), 1923; B.S., Harvard University, 1944; M.S., California Institute of Technology, 1948;

Ph.D., Stanford University, 1955; instructor, Duke University, 1948-50; assistant professor, Pennsylvania State University, 1952-57; associate professor, University of Kansas, 1957-70, professor, 1970-; treasurer, National Association of Geology Teachers, 1961-64; quaternary geology and geomorphology (glacial and fluvial) of Idaho, Kansas, Antarctica; geology of archaeological sites in Idaho, Kansas, Missouri.

George C. Hardin, Jr. (geology), 1920; B.S., Texas A&M College, 1941; Ph.M., University of Wisconsin, 1942; geologist, U.S. Geological Survey, 1942-45, Gragg Oil Company, 1945-46; geologist, petroleum engineer, M. T. Halbouty Consulting Company, 1946-51; exploration and production manager, M. T. Halbouty Oil & Gas Interests, 1951-59, general manager, 1959-61; executive vice president; Halbouty Alaska Oil Company, 1957-61; partner, Hardin & Hardin Consulting Geologists, 1961-64; manager, oil and gas exploration, Kerr-McGee Oil Industries, Inc., 1964-65, vice president, North American oil and gas exploration, 1965-67, vice president, oil, gas, and minerals exploration, 1967-68, group vice president, exploration, 1968, vice president, Kerr-McGee Argentina, Kerr-McGee Canada, Ltd., Kerr-McGee Australia, Ltd., 1967-68; president, chief executive officer, Royal Resources Corporation, 1968-70; president, Ashland Exploration Company, senior vice president, Ashland Oil, Inc., 1970-; president, Houston Geological Society, 1961-62; secretary-treasurer, American Association of Petroleum Geologists, 1964-66; petroleum geology; sedimentation; stratigraphy.

Daniel F. Merriam (geology), 1927; B.S., University of Kansas, 1949, M.S., 1953, Ph.D., 1961; M.Sc., Leicester University, 1969; geologist, Union Oil Company of California, 1949-51; assistant instructor to instructor, University of Kansas, 1951-54; geologist, Kansas Geological Survey, 1953-58, division head, 1958-63, chief, geologic research, 1963-71; research associate, University of Kansas, 1963-71; Jessie Page Heroy professor of geology and department chairman, Syracuse University, 1971-; Fulbright-Hays fellow, 1964-65; visiting professor, Wichita State University, 1968-70; chairman, Research Group in Computer Technology, Society of Economic Paleontologists and Mineralogists, 1970-75; Committee on Computer Applications in Geology, American Association of Petroleum Geologists, 1971-, House of Delegates, 1974-76; secretary-general, International Association for Mathematical Geology, 1972-76, president, 1976-; executive secretary, New York State Geological Association, 1972-; Committee on Publications, Geological Society of America, 1973-76; International Geological Correlations Program, Scientific Committee 4, UNESCO-IUGS, 1975-, chairman, 1976-77; chairman, Supply-Technical Advisory Committee, National Gas Survey, Federal Power Commission, 1975-; founder and editor-in-chief, *Computers & Geosciences*, 1975-; chairman, U.S. National Committee, International Geological Correlation Program, NAS-NRC, 1976-; carboniferous and Mesozoic stratigraphy; geologic history of the mid-continent; cyclic sedimentation; petroleum geology; computers and computer applications in the earth sciences; quantitative stratigraphic analysis.

William A. Oliver, Jr. (paleontology), 1926; B.S., University of Illinois, 1948; M.A., Cornell University, 1950, Ph.D., 1952; assistant professor, Brown University, 1952-57; re-

search paleontologist, U.S. Geological Survey, 1957–; research associate in paleobiology, Smithsonian Institution, 1967–; research professor in geology, George Washington University, 1969–70; president, Association of Earth Science Editors, 1966–68; Council, AAAS, 1971–73, Section Committee, Section on Geology and Geography, 1971–73; vice president for North America, International Committee on Fossil Corals, 1971–; Council, Paleontological Society, 1973–76, president, 1974–75; Board of Directors, American Geological Institute, 1973–76, president, 1976–77; International Subcommittee on Devonian Stratigraphy, 1973–; U.S. National Committee on Geology, 1975–79; trustee, Paleontological Research Institution, 1976–80; Silurian-Devonian corals; biostratigraphy.

Section G—Biological Sciences

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

Donald S. Farner
Malcolm S. Steinberg

Donald S. Farner (zoophysiology), 1915; B.S., Hamline University, 1937; M.A., University of Wisconsin, 1939, Ph.D., 1941; instructor, University of Wisconsin, 1941–43; assistant professor, University of Kansas, 1946–47; associate professor, Washington State University, 1947–52, professor, 1952–65, dean, Graduate School, 1960–64; professor and department chairman, University of Washington, 1965–; Fulbright scholar, 1958–59; Brewster Medal, American Ornithologists' Union, 1964; Alexander von Humboldt-Stiftung Senior Scientist Award, 1978; Council, AAAS, 1962–73, Section Committee, Section on Zoology, 1961–67, member-at-large, Section F, 1965–68, Committee on Council Affairs, 1968–70, Section Committee, Section on Biological Sciences, 1971–; secretary-general, International Union of Biological Sciences, 1964–67, president, 1967–73; Committee on International Union of Biological Sciences, NAS-NRC, 1964–, Executive Committee, Division of Biology and Agriculture, 1966–73, chairman, 1969–73, chairman, Division of Biological Sciences, 1973–74; Board of Governors, Cooper Ornithological Society, 1965–71; president, Western Society of Naturalists, 1966; managing editor, *Zoophysiology and Ecology*, 1967–; Governing Board, International Committee on Laboratory Animals, 1972–; president, American Ornithologists' Union, 1973–75; International Steering Committee, International Center for Research on Manatees (Guyana), 1974–; president, XVII International Ornithological Congress, 1978; avian neuroendocrinology; photoperiodic mechanisms; avian reproductive physiology.

Malcolm S. Steinberg (developmental biology), 1930; B.A., Amherst College, 1952; M.A., University of Minnesota, 1954, Ph.D., 1956; instructor, University of Minnesota, 1955, Marine Biological Laboratory, Woods Hole, 1956; fellow, Carnegie Institution, 1956–58; assistant to associate professor, Johns Hopkins University, 1958–66; professor, Princeton University, 1966–, director, Graduate Studies in Biology, 1969–72, Henry Fairfield Osborn professor of biology, 1975–; director, Embryology Course, Marine Biological Laboratory, 1967–72; program officer, Division of Developmental Biology, American Society of Zoologists, 1966–69; Editorial Board, *Journal of Experimental Zoology*,

1967–70; trustee, Marine Biological Laboratory, 1969–77, chairman, Committee on Instruction, 1972–74; secretary and trustee, Society for Developmental Biology, 1970–73; Electorate Nominating Committee, Section on Biological Sciences, AAAS, 1975–77, chairman, 1975; developmental biology editor, *BioScience*, 1976–; animal morphogenetic mechanisms, especially with respect to the role of intercellular adhesiveness in regulating multicellular organization.

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

Winslow R. Briggs
Dorothy M. Skinner

Winslow R. Briggs (plant physiology), 1928; B.A., Harvard University, 1951, M.A., 1952, Ph.D., 1956; instructor to associate professor, Stanford University, 1955–66, professor, 1966–67; professor, Harvard University, 1967–73; director, Department of Plant Biology, Carnegie Institution of Washington, Stanford, 1973–; Guggenheim fellow, 1973–74; National Academy of Sciences, 1974; American Academy of Arts and Sciences, 1975; associate editor, *Annual Review of Plant Physiology*, 1960–72, editor, 1973–; president, American Society of Plant Physiologists, 1975–76, California Botanical Society, 1977–78; biochemical and physiological aspects of plant responses to light; plant growth and development.

Dorothy M. Skinner (biology), 1930; B.S., Tufts University, 1952; Ph.D., Harvard University, 1958; assistant director of admissions, Jackson College, 1952–54; assistant professor, New York University Medical Center, 1962–66; staff member, Biology Division, Oak Ridge National Laboratory, 1968–; professor, University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences, 1968–; NIH fellow, 1955–61; American Cancer Society fellow, 1961–62; fellow, Oak Ridge Institute of Nuclear Studies, 1966–68; Nominating Committee, Division of Comparative Biochemistry and Physiology, American Society of Zoologists, 1972, Division of Developmental Biology, 1974; corporation member, Marine Biological Laboratory, 1971–; Council, American Society of Cell Biology, 1971–74, chairman, Nominating Committee, 1977; Molecular Biology Study Section, NIH, 1972–76; treasurer, Society of General Physiologists, 1973–75; chairman, Nominating Committee, Society for Developmental Biology, 1974; Committee on Nominations, AAAS, 1977–78; interaction of molting and regeneration in Crustacea; characterization of the eukaryotic genome, with special emphasis on satellite DNAs.

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

S. Allen Counter
Robert K. Josephson
Anthony P. Mahowald
Charlotte Preston Mangum

S. Allen Counter (auditory neurobiology), 1944; B.A., Tennessee A&I State University, 1965; Ph.D., Case Western Reserve University, 1970; assistant professor, Harvard University, 1972–76, associate professor, 1977–; National Advisory Mental Health Council, 1971–74; biological basis of auditory communication in invertebrates and lower vertebrates.

Robert K. Josephson (neurobiology), 1934; B.S., Tufts University, 1956; Ph.D., Univer-

sity of California, Los Angeles, 1960; assistant to associate professor, University of Minnesota, 1962–65; associate professor, Case Western Reserve University, 1965–70, professor, 1970–71; professor, University of California, Irvine, 1971–; NATO fellow, Germany, 1961; Guggenheim fellow, 1977–78; Editorial Boards, *The Biological Bulletin*, 1969–72, *Journal of Experimental Zoology*, 1976–; secretary, Division of Comparative Physiology and Biochemistry, American Society of Zoologists, 1969–70, Division chairman, 1974–75; director, Invertebrate Zoology Course, Marine Biological Laboratory, 1972–74, Instruction Committee, 1976–; trustee, Marine Biological Laboratory Corporation, 1972–76; Committee on Marine Invertebrates, Institute of Laboratory Animal Resources, NRC, 1976–; neural control of behavior in animals with simple nervous systems.

Anthony P. Mahowald (developmental biology), 1932; B.S., Spring Hill College, 1958; Ph.D., Johns Hopkins University, 1962; research fellow, Johns Hopkins University, 1962–66; assistant professor, Marquette University, 1966–70; visiting scientist, assistant member, Institute for Cancer Research, 1970–72; associate professor of zoology, Indiana University, 1972–76, professor, 1976–; oogenesis and early embryogenesis in *Drosophila*; structure and function of the germ plasm; scanning electron microscopy of *Drosophila* embryos.

Charlotte Preston Mangum (biology), 1938; A.B., Vassar College, 1959; M.S., Yale University, 1961, Ph.D., 1963; assistant to associate professor, College of William & Mary, 1964–74, professor, 1974–; visiting investigator and instructor, Marine Biological Laboratory, Woods Hole, 1969–73; lecturer, University of Aarhus, Denmark, 1974; NSF fellow, 1961–64; NIH fellow, 1965; William & Mary Faculty research fellow, 1973; secretary, Division of Comparative Physiology and Biochemistry, American Society of Zoologists, 1972–74, chairman-elect, 1977; member-at-large, Executive Committee, ASZ, 1973–76; comparative respiratory physiology.

Section H—Anthropology

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

James A. Gavan
James B. Watson

James A. Gavan (anthropology), 1916; B.A., University of Arizona, 1939; M.A., University of Chicago, 1949, Ph.D., 1953; assistant to associate professor of anatomy, Medical College of South Carolina, 1953–62; associate professor of anatomy and anthropology, University of Florida, 1962–67; professor of anthropology, University of Missouri, 1967–; Executive Committee, American Association of Physical Anthropologists, 1966–69, secretary-treasurer, 1973–77; Dental Study Section, NIH, 1970–74; Anthropology Review Panel, NSF, 1976–; postnatal growth of nonhuman primates; primate phylogeny.

James B. Watson (social and cultural anthropology), 1918; A.B., University of Chicago, 1941, A.M., 1945, Ph.D., 1948; assistant professor, Escola de Sociologia e Política, Sao Paulo, 1944–45, Beloit College, 1945–46; associate professor, University of Oklahoma, 1946–47, Washington University, 1947–55; professor, University of Washington, 1955–; Ford fellow, 1953–55; senior fellow, Institute of Advanced Projects, East-West Center,

1966-67; visiting professor, State University of New York, Albany, 1969; president, Central States Anthropological Society, 1950; member-at-large, Section on Anthropology, AAAS, 1953-56; cultural evolution; economic anthropology; human ecology; ethnology of Oceania, especially Melanesia.

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

Catharine McClellan
Neil C. Tappen

Catharine McClellan (anthropology), 1921; A.B., Bryn Mawr College, 1942; Ph.D., University of California, Berkeley, 1950; assistant professor, University of Washington, 1952-56; anthropological consultant, U.S. Public Health Service, Anchorage, 1956; assistant professor and department chairman, Barnard College, 1956-61; associate professor, University of Wisconsin, 1961-65, professor, 1965-, Bascom professor of anthropology, 1973-; visiting professor, University of Alaska, 1973; secretary-treasurer, American Ethnological Society, 1958-59, president, 1965; Executive Committee, American Society for Ethnohistory, 1968-71; associate editor, *Arctic Anthropology*, 1961-74, editor, 1974-; cultural history of northwestern North America; anthropological theory.

Neil C. Tappen (anthropology), 1920; A.B., University of Florida, 1941; M.A., University of Chicago, 1949, Ph.D., 1952; research associate, University of Michigan, 1951-52, University of Pennsylvania, 1952-54; instructor to assistant professor of anatomy, Emory University, 1954-59; associate professor, Tulane University, 1959-65; professor, University of Wisconsin, Milwaukee, 1965-69, Earnest A. Hooton professor of anthropology, 1969-; Fulbright scholar, Uganda, 1956-57; Nominating Committee, American Association of Physical Anthropologists, 1965-67; primate biology; structure and organization of bone; organization of bone in fossil hominids; primate and human evolution.

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

Robert E. Ackerman
Richard A. Gould
Michael A. Little
Douglas Osborne

Robert E. Ackerman (anthropology, archaeology), 1928; A.B., University of Michigan, 1950, M.A., 1951; Ph.D., University of Pennsylvania, 1961; fellow, Eastern Pennsylvania Psychiatric Institute, 1959-61; instructor, University of Delaware, 1960-61; instructor to associate professor, Washington State University, 1961-71, professor, 1971-, acting department chairman, 1971-72; NAS senior scientist exchange to U.S.S.R., 1976; archaeology and ethnology of Arctic and Subarctic North America, Siberia, and Northwest Coast.

Richard A. Gould (anthropology), 1939; B.A., Harvard University, 1961; Ph.D., University of California, Berkeley, 1965; assistant curator of North American archaeology, American Museum of Natural History, 1965-71; associate professor, University of Hawaii, 1971-75, professor, 1975-; NSF fellow, 1964-65; Social Science Research Council fellow, 1966-67; assistant editor, *Asian Perspectives*, 1971-; Committee on Ethics, American Anthropological Association, 1974-77, chairman, 1976-77; ethnoarchaeology; ethnology

and archaeology of Australian aborigines; lithic technology and experimental archaeology; ecological anthropology.

Michael A. Little (biological anthropology), 1937; B.A., Pennsylvania State University, 1962, M.A., 1965, Ph.D., 1968; assistant professor, Ohio State University, 1967-70; assistant professor, State University of New York, Binghamton, 1971-73, associate professor, 1973-; NASA fellow, 1969, 1970; scientific coordinator, Human Adaptability Component, International Biological Program, Pennsylvania State University, 1972-73; secretary-treasurer, Human Biology Council, 1973-75, Executive Committee, 1974-; human adaptability and human ecology of populations living under conditions of environmental stress.

Douglas Osborne (anthropology), 1912; B.A., University of New Mexico, 1938, M.A., 1941; Ph.D., University of California, Berkeley, 1951; director, Northwest area, Smithsonian Institution-River Basin Surveys, 1948-49; assistant professor and curator, Washington State Museum, University of Washington, 1950-57; visiting assistant professor, Yale University, 1957-58; director, Wetherill Mesa Project, National Park Service, 1958-64; professor, California State University, Long Beach, 1964-; president, Seattle Anthropological Society, 1956, Southwestern Anthropological Association, 1972; archaeology prehistory; cultural-environmental accommodation; material cultural development; North America; Micronesia.

Section J—Psychology

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

Roger Brown
Frances K. Graham

Roger Brown (psychology), 1925; B.A., University of Michigan, 1948, M.A., 1949, Ph.D., 1952; assistant professor, Harvard University, 1952-57, professor of social psychology, 1962-74, John Lindsley professor of psychology, 1974-, chairman, Department of Social Relations, 1967-70; associate professor, Massachusetts Institute of Technology, 1957-60; Guggenheim fellow, 1966-67; American Academy of Arts and Sciences, 1963; Outstanding Achievement Award, University of Michigan, 1969; Distinguished Scientific Achievement Award, American Psychological Association, 1971; National Academy of Sciences, 1972; G. Stanley Hall Award in Developmental Psychology, 1973; Intellectual Processes Research Committee, Social Science Research Council, 1959-64; chairman, Behavioral Sciences Study Section, National Institute of Mental Health, 1961-63; president, New England Psychological Association, 1965-66, Division of Personality and Social Psychology, APA, 1965-66, Eastern Psychological Association, 1971-72; developmental psycholinguistics; psycholinguistics; social psychology.

Frances K. Graham (psychology), 1918; B.A., Pennsylvania State University, 1938; Ph.D., Yale University, 1942; director, St. Louis Psychiatric Clinic, 1942-44; assistant to research associate, Washington University, 1942-48, 1953-57; instructor, Barnard College, 1948-51; research associate to associate professor, University of Wisconsin, 1957-68, professor, 1968-; Career Scientist Award, National Institute of Mental Health, 1969-; secretary, Division of Developmental Psy-

chology, American Psychological Association, 1962-65, Division of Comparative Physiological Psychology, 1963-69, Council, APA, 1975-78; Council, Society for Research in Child Development, 1965-71, Publications Board, 1971-75, president, SRCD, 1975-77, Social Policy Committee, 1977-; Board of Directors, Society of Psychophysiological Research, 1968-71, president, 1973-74; infant development; psychophysiology.

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

Leslie H. Hicks
Amado M. Padilla

Leslie H. Hicks (psychology), 1927; B.S., Howard University, 1949; M.S., University of Wisconsin, 1952, Ph.D., 1954; assistant professor, Howard University, 1954-59, associate professor, 1962-66, professor, 1966-68, 1970-, department chairman, 1970-; special fellow, University of California, Los Angeles, 1959-62; administrative officer, Scientific Affairs, American Psychological Association, 1968-70; Committee on Ethics in Human Research, APA 1971-73, Education and Training Board, 1972-75, Committee on Equality of Opportunity in Psychology, 1975-77, Board of Social and Ethical Responsibility, 1976-78; Advisory Council, Department of Psychology, Princeton University, 1970-80; Committee on Minorities in Science, AAAS, 1971-72, Panel on Black Scientists, 1973-; Advisory Screening Committee in Psychology, Council for International Exchange of Scholars, 1974-; brain function and behavior.

Amado M. Padilla (psychology), 1942; B.A., New Mexico Highlands University, 1964; M.S., Oklahoma State University, 1966; Ph.D., University of New Mexico, 1969; assistant professor, State University of New York, Potsdam, 1969-71; assistant professor, University of California, Santa Barbara, 1971-74, director, Institute for Applied Behavioral Science, 1973-74; associate professor, University of California, Los Angeles, 1974-; NIMH fellow, 1964-66; Danforth associate, 1974-; Committee on Fundamental Research Relevant to Education, Assembly of Behavioral and Social Sciences, NRC-NAS, 1976-77; Fulbright Hays lecturer, Peru, 1977; developmental psycholinguistics of bilingualism; cross-cultural comparisons; learning and behavior theory.

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

David Ehrenfreund
Dorothy H. Eichorn
Wendell R. Garner
William F. Pokasy

David Ehrenfreund (psychology), 1917; B.A., State University of Iowa, 1943, M.A., 1945, Ph.D., 1947; instructor to associate professor, Washington State University, 1947-56; professor and department chairman, Adelphi University, 1956-62, Southern Illinois University, Carbondale, 1962-; acting director of publications, Psychonomic Society, 1976-77; Leo Kaplan Award, Sigma Xi, 1963; secretary-treasurer, Washington State Psychological Association, 1952-54, president, 1954-55; chairman, Program Committee, Eastern Psychological Association, 1959; Evaluation Committee, American Psychological Association, 1962-65; Council, Midwestern Psychological Association, 1964-67, president, 1971-72; Council, AAAS, 1967,

Section Committee, Section on Psychology, 1967; learning and motivation.

Dorothy H. Eichorn (psychology), 1924; A.B., University of Vermont, 1947; M.A., Boston University, 1949; Ph.D., Northwestern University, 1951; junior research psychologist, Institute of Human Development, University of California, Berkeley, 1951-54, assistant to associate research psychologist, 1954-67, research psychologist, 1967-, associate director, 1975-, administrator, Child Study Center, 1960-, lecturer, 1951-58, 1960-63, 1971; visiting professor, University of Minnesota, 1965, University of Western Australia, 1976; Council, American Psychological Association, 1963-66, 1968-71, chairman, Policy and Planning Committee and Nominations Committee, 1969-70, Board of Directors, 1969-72, Finance Committee, 1967-70, 1972-75, Relocation Evaluation Committee, 1974-75, secretary-treasurer, Division on Developmental Psychology, 1964-67, president, 1968-69; Small Grants Review Committee, National Institute of Mental Health, 1966-70; executive officer, Society for Research in Child Development, 1971-; president, Phi Beta Kappa, Alpha of California, 1971-72; developmental psychology; developmental psychophysiology; behavioral genetics.

Wendell R. Garner (experimental psychology), 1921; A.B., Franklin & Marshall College, 1942; A.M., Harvard University, 1943, Ph.D., 1946; instructor to associate professor, Johns Hopkins University, 1946-55, professor, 1955-67, director, Psychological Laboratories, Institute for Cooperative Research, 1948-55, department chairman, 1954-64; James Rowland Angell professor of psychology, Yale University, 1967-; visiting associate professor, Stanford University, 1952-53; visiting scientist, Applied Psychology Research Unit, Cambridge, England, 1966-69; visiting fellow, University of California, Los Angeles, 1973-74; Distinguished Scientific Contribution Award, American Psychological Association, 1964; National Academy of Sciences, 1965; Warren Medal, Society of Experimental Psychologists, 1966; chairman, SEP, 1959, 1977; vice president, AAAS, and chairman, Section on Psychology, 1969, Council, 1968-69; president, Division of Experimental Psychology, APA, 1975; perception; information processing.

William F. Prokasy (psychology), 1930; B.A., Baldwin-Wallace College, 1952; M.A., Kent State University, 1954; Ph.D., University of Wisconsin, 1957; assistant to associate professor, Pennsylvania State University, 1957-66; professor and department chairman, University of Utah, 1966-69, dean, social science area, 1968-70, dean, College of Social and Behavioral Science, 1970-; NSF fellow, 1963-64; Distinguished Research Award, University of Utah, 1971; editor, *Psychophysiology*, 1974-; chairman, Board of Scientific Affairs, American Psychological Association, 1977; conditioning and learning.

Section K—Social and Economic Sciences

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

Nathan Keyfitz
David L. Sills

Nathan Keyfitz (sociology, demography), 1913; B.Sc., McGill University, 1934; Ph.D., University of Chicago, 1952; statistician, Dominion Bureau of Statistics, Canada, 1936-59; professor of sociology, University of To-

ronto, 1959-63, University of Chicago, 1963-68; professor of demography, University of California, Berkeley, 1968-72; Andelot professor of sociology and demography, Harvard University, 1972-; worked and taught in Indonesia, 1952-53, 1972, Ceylon, 1965-67, Argentina, 1961, Montreal, 1962-63, Chile, 1963, India, 1975, Austria, 1976; Mindel C. Sheps Award, Population Association of America, 1976; chairman, Social Statistics Section, American Statistical Association, 1960-61; president, PAA, 1970; American Academy of Arts and Sciences, 1971; Committee on National Statistics, NAS, 1976-; mathematics of population; social demography; sociology of development.

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, Allied Occupation of Japan, 1947-50; research associate to director of research, Bureau of Applied Social Research, Columbia University, 1952-61, lecturer, 1959-61; 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; executive associate, Social Science Research Council, 1973-; expert, U.N. Technical Assistance Organization, Demographic Training and Research Centre, Bombay, 1960-61; visiting scholar, Russell Sage Foundation, 1973; member-at-large, Section Committee, Section on Social and Economic Sciences, AAAS, 1975-78; chairman, Sociopolitical Resource Group, Risk/Impact Panel, Committee on Nuclear and Alternative Energy Systems, NAS, 1976-; energy; environment; voluntary associations; foreign area research.

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

Harry Alpert
Wendell Bell

Harry Alpert (sociology), 1912; A.B., College of the City of New York, 1932; A.M., Columbia University, 1935, Ph.D., 1938; fellow to assistant professor, College of the City of New York, 1933-47; professorial lecturer and adjunct professor, American University, 1947, 1950-58; associate professor and department chairman, Queens College, 1948-50; analytical statistician, Bureau of the Budget, 1945-48, 1950-53; study director and program director, National Science Foundation, 1953-58; professor, University of Oregon, 1958-, dean, Graduate School, 1958-64, dean of faculties, 1964-71, vice president for academic affairs and provost, 1971-76; fellow, Center for Advanced Study in the Behavioral Sciences, 1963-64; director, Department of Social Sciences, UNESCO, 1967-70; visiting professor, University of Virginia, 1977; president, District of Columbia Sociological Society, 1953-54, Washington Statistical Society, 1954-55, American Association for Public Opinion Research, 1955-56, Sociological Research Association, 1961, Pacific Sociological Association, 1962-63; Committee of Judges, AAAS Socio-Psychological Prize, 1958; Board of Directors, Population Association of America, 1958-61; vice president, American Sociological Association, 1959; sociology of science; history of sociological and social theory; Durkheimian sociology; social psychology.

Wendell Bell (sociology), 1924; B.A., Cali-

fornia State University, Fresno, 1948; M.A., University of California, Los Angeles, 1951, Ph.D., 1952; assistant professor and acting director, Survey Research Facility, Stanford University, 1952-54; associate professor, Northwestern University, 1954-57; associate professor to professor, University of California, Los Angeles, 1957-63, director, West Indies Study Program, 1960-63; professor, Yale University, 1963-, department chairman, 1965-69, director, Comparative Sociology Training Program, 1969-77, Undergraduate Studies, 1976-; Faculty research fellow, Social Science Research Council, 1956-59; fellow, Center for Advanced Study in the Behavioral Sciences, 1963-64; associate editor, *American Sociological Review*, 1958-61; vice president, Pacific Sociological Association, 1960-61, Advisory Council, 1962-64; MacIver Award Selection Committee, American Sociological Association, 1966-68, chairman, 1968; Executive Committee, Division of Behavioral Sciences, NRC, 1968-69; Committee on Comparative Sociology, SSRC, 1968-69; Editorial Board, *International Studies Quarterly*, 1970-; Executive Committee, Comparative Interdisciplinary Study Section, International Studies Association, 1970-, vice president, ISA, 1970-71, Advisory Council, 1970-73; political sociology, especially new nations; social change, especially futuristics; comparative sociology (Caribbean and Western Europe); urban sociology.

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

Hugh F. Cline
Eliot Freidson
Samuel H. Preston
Harriet Zuckerman

Hugh F. Cline (sociology), 1935; B.A., Pennsylvania State University, 1956; M.S.Sc., University of Stockholm, 1961; Ph.D., Harvard University, 1966; assistant professor, University of California, Santa Barbara, 1965-67; staff sociologist, Russell Sage Foundation, 1967-72, president, 1972-76; senior research sociologist, Educational Testing Service, 1976-; chairman, Joint Committee on Research, Council on Foundations and The Foundation Center; Advisory Board, *Policy Sciences*; director, Council of Applied Social Research; Advisory Council, *Computers and the Humanities*, 1967; impact of technology on social organization.

Eliot Freidson (sociology), 1923; Ph.B., University of Chicago, 1947, M.A., 1950, Ph.D., 1952; Ford research fellow, University of Illinois, 1952-54; project director, U.S. National Student Association, 1954-55; assistant to associate professor, City College of New York, 1954-61; associate professor, New York University, 1961-63, professor, 1963-, department chairman, 1975-; Sorokin Award, American Sociological Association, 1972; Institute of Medicine, NAS, 1972; fellow, Center for Advanced Study in the Behavioral Sciences, 1974-75; chairman, Medical Sociology Section, ASA, 1963-64, chairman, Committee on Information Technology and Privacy, 1971-75, cochairman, Section on Occupations and Organizations, 1976-77; editor, *Journal of Health and Social Behavior*, 1966-69; president, Research Committee on Medical Sociology, International Sociological Association, 1967-71; Editorial Advisory Board, *Encyclopedia of Bioethics*, 1974-; Special Advisory Council on Medical Licensure and Professional Conduct, Medical Practice Task Force of New York State Assembly, 1977-79; soci-

ology of professions and occupations; medical sociology.

Samuel H. Preston (demography), 1943; B.A., Amherst College, 1965; Ph.D., Princeton University, 1968; assistant professor, University of California, Berkeley, 1968-72; associate professor to professor, University of Washington, 1972-; director, Center for Studies in Demography and Ecology, 1972-; Organizing Committee, International Population Conference, International Union for Scientific Study of Population, 1975-77; Board of Directors, Population Association of America, 1975-78, chairman, Finance Committee, 1977-78; mortality; demographic methods and models.

Harriet Zuckerman (sociology), 1937; A.B., Vassar College, 1958; Ph.D., Columbia University, 1965; assistant professor, Columbia University, 1965-72, associate professor, 1972-; Woodrow Wilson fellow, 1958-59; Social Science Research Council fellow, 1962-64; visiting scholar, Russell Sage Foundation, 1971-72; fellow, Center for Advanced Study in the Behavioral Sciences, 1973-74; Sigma Xi national lecturer, 1975-76; Nominating Committee, American Sociological Association, 1973-74; Committee on Public Understanding of Science, AAAS, 1973-74, Section Committee, Section on Social and Economic Sciences, 1976-; Board of Directors, SSRC, 1974-76, Advisory and Planning Committee, Social Indicators, 1974-, chairman, Subcommittee on Science Indicators, 1974-; sociology of science; sociological theory.

Section L—History and Philosophy of Science

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

Lawrence Badash
Melvin Kranzberg

Lawrence Badash (history of science), 1934; B.S., Rensselaer Polytechnic Institute, 1956; Ph.D., Yale University, 1964; instructor, Yale University, 1964-65; NATO fellow, Cambridge University, 1965-66; assistant professor, University of California, Santa Barbara, 1966-73, associate professor, 1973-; cofounder, cochairman, West Coast (Lazzaroni) History of Science Society, 1971-73; Pfizer Prize Committee, History of Science Society, 1972, Schuman Prize Committee, 1975, Council, 1975-78; National Board of Directors, SANE, 1972-; consultant, Bicentennial Project, Smithsonian Institution, 1973; chairman, Electorate Nominating Committee, Section on History and Philosophy of Science, AAAS, 1974; Advisory Committee, Nuclear Reactor History Project, RAND Corporation, 1975-; history of modern physics, especially radioactivity; development of nuclear energy for military and civilian purposes; science in the Soviet Union; contemporary issues in science and society, science and government, and science and social responsibility.

Melvin Kranzberg (history of technology), 1917; A.B., Amherst College, 1938; M.A., Harvard University, 1939, Ph.D., 1942; instructor, Harvard University, 1947, Stevens Institute of Technology, 1946-47; assistant professor, Amherst College, 1947-52; assistant professor to professor, Case Western Reserve University, 1952-72; Callaway professor of the history of technology, Georgia Institute of Technology, 1972-; Leonardo da Vinci Medal, Society for the History of Technology, 1967, secretary, SHOT, 1958-74; member-at-large, Section Committee, Section on History and Philosophy of Science,

AAAS, 1962-65, vice president, AAAS, chairman, Section L, and Council, 1966; vice president, International Cooperation in the History of Technology Committee, 1968-; Historical Advisory Committee, NASA, 1968-, chairman, 1970-72; Technology Assessment Panel, NAS, 1968-69, Committee on Survey of Materials Science and Engineering, 1971-73; chairman, U.S. National Committee, International Union of the History and Philosophy of Science, 1972; Advisory Committee on Science, Technology, and Human Values, National Endowment for the Humanities, 1974-; chairman, Advisory Panel, Division of Policy Research and Analysis, NSF, 1977-; science-technology relationships; innovation; science-technology policy; technology assessment; technology-society interface.

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

David L. Hull
Aaron J. Ihde

David L. Hull (history and philosophy of science), 1935; Ph.D., Indiana University, 1964; professor, University of Wisconsin, Milwaukee, 1964-; visiting professor, Indiana University, 1968, University of Chicago, 1972, University of Illinois, 1976; Editorial Board, *Systematic Zoology*, 1969-74, associate editor, 1976-77; International Committee, First International Congress on Systematic and Evolutionary Biology, 1973; Council, Classification Society, 1973; Editorial Boards, *Evolutionary Theory*, 1975-77, *Philosophy of Science*, 1976; Program Committee, Philosophy of Science Association, 1975-76, External Funding Committee, 1975-76, chairman, Nominating Committee, 1977; philosophy of biology; 19th century evolutionary theory; sociology of science.

Aaron J. Ihde (history of science), 1909; B.S., University of Wisconsin, 1931, M.S., 1939, Ph.D., 1941; research chemist, Blue Valley Creamery Company, 1931-38; teaching assistant, University of Wisconsin, 1938-41, instructor to associate professor, 1942-58, professor of chemistry, history of science and integrated liberal studies, 1958-; instructor, Butler University, 1941-42; Dexter Award, 1968; chairman, Division of History of Chemistry, American Chemical Society, 1961-65; president, Wisconsin Academy of Sciences, Arts & Letters, 1963-64; Council, History of Science Society, 1964-67, AAAS, 1966-67, 1969; Editorial Board, *Isis*, 1967-70; history of chemistry, particularly organic and biochemistry in 19th and 20th centuries; application of science in agriculture, medicine, and technology.

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

Frederick B. Churchill
William Coleman
Peter Machamer
John E. Murdoch

Frederick B. Churchill (history of science), 1932; Ph.D., Harvard University, 1967; associate professor, Indiana University, 1967-; Executive Council, History of Science Society, 1970-72, program chairman, Annual Meetings, 1973, Schuman Prize Committee, 1971-72; U.S. International Committee for the History and Philosophy of Science, 1976-78; history of biology, with particular emphasis on the 19th century; history of evolution theory, embryology, and genetics.

William Coleman (history of science), 1934; A.B., Wabash College, 1955; Ph.D., Harvard University, 1962; assistant professor to professor, Johns Hopkins University, 1962-71, professor of history of science and humanistic studies, 1973-; professor, Northwestern University, 1971-73; Council, History of Science Society, 1964-70, American Association of the History of Medicine, 1977-81; history of biology; history of medicine, especially public health in the 18th and 19th centuries.

Peter Machamer (history and philosophy of science), 1942; B.A., Columbia University; M.A., Cambridge University; Ph.D., University of Chicago; assistant to associate professor, Ohio State University 1969-76; associate professor, University of Pittsburgh, 1976-; Renaissance and 17th century science; philosophy of science; philosophy of psychology.

John E. Murdoch (history of science), 1927; B.A., University of Wisconsin, 1953, M.A., 1954, Ph.D., 1957; instructor to assistant professor, Harvard University, 1957-60, associate professor, 1963-67, professor, 1967-; assistant professor and bicentennial preceptor, Princeton University, 1960-63; fellow, American Academy of Arts and Sciences; Council, History of Science Society, 1963-69, Editorial Board, *Isis*, 1964-70, delegate to American Council of Learned Societies, 1970-; vice president, AAAS, chairman, Section on History and Philosophy of Science, and Council, 1964; Advisory Panel on History and Philosophy of Science, NSF, 1964-67; Comité de Rédaction, Archives Int. d'Hist. des Sciences, 1968-; president, Union Int. d'Hist. et de Phil. des Sciences, 1971-74; assesseur, Societe Int. pour l'Etude de la Philosophie Med., 1972-; history of medieval natural philosophy and mathematics.

Section M—Engineering

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

H. Norman Abramson
Daniel C. Drucker

H. Norman Abramson (theoretical and applied mechanics), 1926; B.S., Stanford University, 1950, M.S., 1952; Ph.D., University of Texas, 1956; research assistant, Stanford University, 1948-51; project analytical engineer, Chance Vought Aircraft, 1951-52; associate professor, Texas A&M University, 1952-56; manager, Engineering Analysis, Southwest Research Institute, 1956-59, department director, 1959-72, vice president, Engineering Sciences Division, and director, Department of Mechanical Sciences, 1972-; Distinguished Service Award, American Institute of Aeronautics and Astronautics, 1973; National Academy of Engineering, 1976; associate editor, *Applied Mechanics Reviews*, American Society of Mechanical Engineers, 1954-, Basic Engineering Department Policy Board, 1963-64, 1967-69, chairman, 1974-78, vice president, Basic Engineering, 1974-78; Papers and Publications Committee, Society for Experimental Stress Analysis, 1958-61, 1967-; Council, AAAS, 1968-69, Section Committees, Sections on Physics, on Engineering, on Information, Computing, and Communication, and on Atmospheric and Hydrospheric Sciences, 1968-69; Ship Research Committee, NAS-NRC, 1969-73; Publications Committee, AIAA, 1970-, Advisory Board, *Aeronautics/Astronautics Magazine*, 1975-, Technical Committee on Marine Systems and Technology, 1976-; Editorial Advi-

sory Board, *Journal of Computers and Structures*, 1970–; Board of Directors, Society of Engineering Science, 1971–73; Hydrodynamics Committee, Society of Naval Architects and Marine Engineers, 1973–75; Advisory Panel on Engineering Mechanics, NSF, 1975–76; dynamic behavior of liquid propellants in rockets and spacecraft; liquid dynamic motions in marine and earthquake engineering; ship structural analysis and dynamics; hydroelasticity.

Daniel C. Drucker (applied mechanics), 1918; B.S., Columbia University, 1937, C.E., 1938, Ph.D., 1940; assistant, Columbia University, 1938–39; instructor, Cornell University, 1940–43; supervisor, Mechanics of Solids, Armour Research Foundation, 1943–45; assistant professor, Illinois Institute of Technology, 1946–47; associate professor to professor, Brown University, 1947–68, chairman, Division of Engineering, 1953–59, Physical Sciences Council, 1961–63, L. Herbert Ballou university professor, 1963–68; dean, College of Engineering, University of Illinois, 1968–; Guggenheim fellow, 1960–61; NATO fellow, 1968; Illig Medal, 1938; Von Karman Medal, American Society of Civil Engineers, 1966; Lamme Medal, American Society for Engineering Education, 1967; M. M. Frocht Award, Society for Experimental Stress Analysis, 1971; American Academy of Arts and Sciences; National Academy of Engineering, 1967; technical editor, *Journal of Applied Mechanics*, 1956–68; president, SESA, 1960–61, American Academy of Mechanics, 1972–73, American Society of Mechanical Engineers, 1973–74, New England Council, ASCE; treasurer, International Union of Theoretical and Applied Mechanics, 1972–; Committee on Public Engineering Policy, NAE, 1972; chairman, Engineering College Council, ASCE, 1975–77; Report Review Committee, NAS, 1975–; Committee on Human Rights, 1976–; inelastic behavior of structures and continua; materials engineering.

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

Robert Bromberg
Donald L. Katz

Robert Bromberg (engineering), 1921; B.S., University of California, Berkeley, 1943; M.S., University of California, Los Angeles, 1945, Ph.D., 1951; engineering research staff, University of California, Berkeley and Los Angeles, 1943–52; assistant to associate professor, UCLA, 1952–54; various technical positions, Ramo Wooldridge Corporation-Space Technology Laboratories, 1954–61, director, Mechanics Division, TRW-STL, 1961–65, vice president, TRW Systems, 1962–, general manager, Power Systems Division, 1966–68, Science and Technology Division, 1968–71, Applied Technology Division, 1971–72, vice president, Research and Engineering, TRW Defense and Space Systems, 1972–; Engineering Alumnus of the Year, UCLA, 1969; National Academy of Engineering, 1969; Engineering Advisory Council, UCLA, 1962–77, chairman, 1973–; trustee, UCLA Foundation, 1967–; chairman, Corporate Member Committee, American Institute of Aeronautics and Astronautics, 1973–77; Membership Committee, NAE, 1975–77; heat transfer; fluid mechanics; materials; energy conversion and combustion.

Donald L. Katz (chemical engineering), 1907; B.S.E., University of Michigan, 1931, Ph.D., 1933; research engineer, Phillips Petroleum Company, 1933–36; assistant to asso-

ciate professor, University of Michigan, 1936–43, professor, 1943–66, A. A. White university professor, 1966–77, professor emeritus, 1977–, department chairman, 1951–62; J. F. Carll Award, American Institute of Mining, Metallurgical, and Petroleum Engineers, 1964; Founders Award, American Institute of Chemical Engineers, 1964, W. K. Lewis Award, 1967, Walker Award, 1968; Distinguished Public Service Award, U.S. Coast Guard, 1972; E. V. Murphree Award, 1975; National Academy of Engineering, 1968; president, AIChE, 1959; trustee, EDUCOM, 1966–73, chairman of the Board, 1969–71; several committees of the American Chemical Society, Society of Petroleum Engineers, American Society of Engineering Education; phase behavior; thermodynamics of fluids; petroleum engineering; underground gas storage.

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

Phillip Eisenberg
Robert E. Machol
L. L. Palmer
Erman A. Pearson

Phillip Eisenberg (mechanical engineering), 1919; B.S.C.E., Wayne State University, 1941; C.E., California Institute of Technology, 1948; instructor, University of Iowa, 1941–42; project manager, David Taylor Model Basin, 1942–44, head, Fluid Phenomena Branch, 1946–53; head, Mechanics Branch, Office of Naval Research, 1953–59; president and chairman of the Board, Hydronautics, Inc., 1959–74, chairman, Executive Committee, 1974–; David Taylor Gold Medal, Society of Naval Architects and Marine Engineers, 1971; Gibbs Brothers Medal, NAS, 1974; National Academy of Engineering, 1974; editor, *Journal of Ship Research*, 1961–71; Council, SNAME, 1967–, Executive Committee, 1970–, president, 1973–74, chairman, Nominating Committee, 1975–76; Marine Board, NAE, 1974–; U.S.-U.S.S.R. Joint Committee on Cooperative Studies in World Oceans, 1975–; Maritime Transportation Research Board, NAS, 1975–78; Board of Directors, National Ocean Industries Association, 1975–78; president, Marine Technology Society, 1976–77; Sea Grant Advisory Panel, Department of Commerce, 1977; hydrodynamics, especially cavitation and cavitation phenomena; structural mechanics; naval architecture and marine engineering.

Robert E. Machol (systems analysis), 1917; A.B., Harvard University, 1938; M.S., University of Michigan, 1953, Ph.D., 1957; research engineer and lecturer, University of Michigan, 1951–58; professor of electrical engineering, Purdue University, 1958–61; vice president, Conductron Corporation, 1960–64; professor and department head, University of Illinois, 1964–67; professor of systems, Graduate School of Management, Northwestern University, 1967–; Administrative Committee, Professional Group on Systems Science and Cybernetics, Institute of Electrical and Electronics Engineers, 1967–68; president, Operations Research Society of America, 1971–72; editor-in-chief, *Studies on Management Science*, Institute of Management Sciences, 1977–; fungal taxonomy; search for extraterrestrial intelligence; other applications of systems analysis.

L. L. Palmer (environmental engineering), 1950; B.S., University of California, Irvine, 1972, M.S., 1973; reliability engineer, Rock-

well International, 1972; research associate, University of California, Irvine, 1973; research engineer, Chevron Oil Field Research Company, 1973–; fate and effects of environmental contaminants; control/treatment processes for water pollution, emphasizing marine-oriented disposal.

Erman A. Pearson (civil/sanitary engineering), 1920; B.S., University of Washington, 1946; S.M., Massachusetts Institute of Technology, 1947, Sc.D., 1949; senior engineer, Boeing Aircraft Company, 1941–45; research associate, MIT, 1947–49; assistant to associate professor, University of California, Berkeley, 1949–60, professor, 1960–, division chairman, 1967–70, 1974–75; Fulbright scholar, University of Oslo, 1962–63; guest professor, Royal Institute of Technology, Sweden, 1970–71, 1977–78; Allied Chemical Award, Brazil, 1962; president, International Association for Water Pollution Research, 1964–69, Association of Environmental Engineering Profs., 1964–66; Governor's Commission on Ocean Resources, 1965–66; chairman, 1st Committee on Ecology, Water Pollution Control Federation, 1970–75; Section on Water Quality, International Union of Pure and Applied Chemistry, 1972–76; Committee on Water Research, International Council of Scientific Unions, 1972–; water treatment; wastewater treatment and disposal, especially marine water quality management; water resources quality management.

Section N—Medical Sciences

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

Theodore Cooper
J. Lowell Orbison

Theodore Cooper (physiology), 1928; B.S., Georgetown University, 1949; M.D., St. Louis University, 1954, Ph.D., 1956; surgeon, National Heart Institute, NIH, 1956–60; assistant professor to professor of surgery, St. Louis University, 1960–66, director, Section of Surgical Physiology, 1960–62, Center for Cardiovascular Research, 1961–65; professor and department chairman, University of New Mexico, 1966–68; associate director, Artificial Heart-Myocardial Infarction Program, National Heart Institute, 1967–68; director, National Heart and Lung Institute, and chief, Section of Cardiovascular Pharmacology, NIH, 1968–74; deputy assistant secretary for health, DHEW, 1974–75, assistant secretary for health, 1975–; visiting scholar, Institute of Medicine, NAS, 1977; DHEW Superior Service Honor Award, 1972; Gold Heart Award, American Heart Association, 1973; Skylab Achievement Award, NASA, 1974; Distinguished Service Awards, American College of Cardiology and American Institute of Biological Sciences, 1975; Award of Merit, American Academy of Family Physicians, 1976; Harvey W. Wiley Medal, Food and Drug Administration, 1976; Editorial Boards, *Journal of Pharmacology and Experimental Therapeutics*, 1965–, *Circulation Research*, 1966–71; senior editor, *Chest*, 1973–; Board of Governors, American National Red Cross, 1975–77; Federal Coordinating Council for Science, Engineering, and Technology, 1975–77; Scientific Advisory Board, American Leprosy Foundation, 1975–; Board of Directors, National Health Council, Inc., 1976–; clinical and experimental cardiovascular physiology, pharmacology, and surgery; medical administration; health policy.

J. Lowell Orbison (pathology), 1915; A.B., Ottawa University, 1937; M.S., Michigan State University, 1939; M.D., Northwestern University, 1944; pathologist, William Beaumont General Hospital, 1945-47; senior instructor to associate professor, Western Reserve University, 1947-55, assistant to associate pathologist, University Hospitals, 1949-55; professor and department chairman, University of Rochester, 1955-70, dean, Medical School, director, Medical Center, and George H. Whipple professor of pathology, 1967-; Centennial Certificate of Merit, Northwestern University, 1961; Alumni Gold Medal, University of Rochester Medical Alumni Association, 1968; Albert David Kaiser Medal, Rochester Academy of Medicine, 1975; Editorial Boards, *Circulation Research*, 1955-65, *Arthritis and Rheumatism*, 1962-64, *Laboratory Investigation*, 1967-74; Scientific Advisory Board, Armed Forces Institute of Pathology, 1957-62, 1969-74; Intersociety Committee for Research Potential in Pathology, 1959-, president, 1961-75; president, International Academy of Pathology, 1963-64; secretary-treasurer, American Association of Pathologists and Bacteriologists, 1965-68, president, 1969; Committee on Pathology, NAS-NRC, 1966-71; Committee on Cancer Research Centers, NCI-NIH, 1968-72; Board of Directors, Genesee Region Health Planning Council, 1970-, Genesee Region Educational Alliance for Health Personnel, Inc., 1972-, Finger Lakes Health Systems Agency, 1975-; Advisory Council, New York and Northern New Jersey Regional Medical Library Program, 1975-; connective tissue; vascular disease.

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

Sherman M. Mellinkoff
Helen M. Ranney

Sherman M. Mellinkoff (medicine), 1920; B.A., Stanford University, 1941, M.D., 1944; Medical Corps, U.S. Army, 1945-47; assistant resident, Johns Hopkins Hospital, 1947-49, resident, 1950-51, instructor in medicine and physician-in-charge of gastroenterology, Outpatient Department, 1951-53; fellow in gastroenterology, University of Pennsylvania Hospital, 1949-50; assistant to associate professor, University of California, Los Angeles, 1953-62, professor and dean, School of Medicine, 1962-; Editorial Board, *Archives of Internal Medicine*, 1965-74; master, American College of Physicians, 1973; Institute of Medicine, NAS, 1974; chairman, Association of American Medical Colleges, 1974-75; Scientific Advisory Panel, Research to Prevent Blindness, Inc., 1975-78; American Academy of Arts and Sciences, 1976; Council, AAAS, 1976-78; president, Western Association of Physicians, 1977-78; gastroenterology.

Helen M. Ranney (internal medicine, hematology), 1920; A.B., Columbia University, 1941, M.D., 1947; assistant resident, Presbyterian Hospital, 1948-50; clinical fellow, Columbia University, 1951-53, instructor to associate in medicine, 1954-58, assistant professor, 1958-60; associate professor, Yeshiva University, 1960-65; professor, Albert Einstein College of Medicine, 1965-70, State University of New York, Buffalo, 1970-73; professor and department chairperson, University of California, San Diego, 1973-; Joseph Mather Smith Prize, Columbia University, 1955; Dr. Martin Luther King, Jr., Medical Achievement Award for Outstanding Contribution in Field of Sickle Cell Anemia, 1972; National Academy of Sciences; fellow, Amer-

ican Academy of Arts and Sciences; Hematology Study Section, NIAMD, NIH, 1971-75; president, American Society of Hematology, 1973-74; Editorial Boards, *American Journal of Physiology*, *Journal of Clinical Investigation*, *Blood*; recorder, Association of American Physicians, 1974-; Membership Committee, Institute of Medicine, 1975-; Tissue and Organ Biology Interdisciplinary Cluster, President's Panel on Biomedical Research, 1975; Board of Directors, Squibb Corporation, 1975-; president, Western Association of Physicians, 1976; human heredity.

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

Morton D. Bogdonoff
Francis P. Chinard
Sydney Ellis
Carl W. Gottschalk

Morton D. Bogdonoff (medicine), 1925; M.D., Cornell University, 1948; intern to senior assistant resident, New York Hospital, 1948-50; senior assistant surgeon, National Heart Institute, NIH, 1950-52; senior assistant resident, Duke University Hospital, 1952-53, Eli Lilly research fellow, 1953-54, chief resident, 1954-55; associate, Department of Medicine, Duke University Medical School, 1955-56, assistant to associate professor, 1957-62, professor, 1962-69, assistant dean, Graduate Medical Education, 1967-69; associate professor, University of Miami, 1956-57; professor and department chairman, University of Illinois, Chicago, 1970-75; professor and executive associate dean, Cornell University Medical College, 1975-; editor, *Clinical Research*, 1959-64; president, American Federation for Clinical Research, 1964-65; Study Section for Health Services Research, NIH, 1966-70; chief editor, *Archives of Internal Medicine*, 1967-76; Presidential Advisory Panel on Heart Disease, 1972.

Francis P. Chinard (physiological chemistry, internal medicine), 1918; A.B., University of California, 1937; M.D., Johns Hopkins School of Medicine, 1941; Medical Corps, U.S. Army, 1942-45; assistant physician, Rockefeller Institute Hospital, 1945-49; Markle scholar, Johns Hopkins School of Medicine, 1949-54, instructor to associate professor, 1949-62; assistant to associate professor, University of Maryland Medical School, 1954-63; professor, McGill University, 1963-64; professor, New York University, 1964-68, adjunct professor, 1968-70; career scientist, Health Research Council of the City of New York, 1964-68; professor of medicine and department chairman, New Jersey Medical School, 1968-75, professor of experimental medicine, 1975-; numerous hospital appointments; Editorial Board, *Circulation Research*, 1967-72; president, Association of Career Scientists, Health Research Council, New York City, 1967-68; Pulmonary Disease Advisory Committee, National Heart and Lung Institute, 1971-75, chairman, 1974-75, Board of Scientific Counselors, 1976-80; chairman, Medical Advisory Board, Bio-Medical Life Support Systems, Inc., 1972-76; Board of Trustees, Academy of Medicine of New Jersey, 1972-; Manuscript Review Board, *Journal of Medical Society of New Jersey*, 1974-; membrane permeability; reflection and filtration coefficients; pulmonary edema; tissue fluids; lung metabolism.

Sydney Ellis (pharmacology, biochemistry), 1917; B.S., Boston University, 1938, M.A., 1939, Ph.D., 1941; research fellow to assis-

tant, Harvard Medical School, 1941-44; assistant professor, Duke University Medical School, 1946-49; associate professor, Temple University School of Medicine, 1949-57; professor and department chairman, Woman's Medical College of Pennsylvania, 1957-67, University of Texas Medical Branch, Galveston, 1967-; Christian R. and Mary F. Lindback Award for Distinguished Teaching, 1964; U.S. Pharmacopoeia Committee, 1955-; Pharmacology and Experimental Therapeutics Study Section, NIH, 1960-64, Medicinal Chemistry B Study Section, 1964-68; Council and Section Committee, Section on Medical Sciences, AAAS, 1963; Pharmacology Examination Committee, National Board of Medical Examiners, 1964-68; Editorial Boards, *Journal of Applied Physiology*, 1965-69, *American Journal of Physiology*, 1966-69, *Therapie*, 1973-, *Archives de Pharmacologie y Toxicologia*, 1975-, *Archives Internationales de Pharmacodynamie et de Therapie*, 1976-; Executive Committee, Association for Medical School Pharmacology, 1974-76; secretary-treasurer, American Society for Pharmacology and Experimental Therapeutics, 1976-79; enzymes; effects of enzyme inhibitors on tissues; chemistry and biochemistry of drug decomposition and metabolism; mechanism of action of neurohumoral agents.

Carl W. Gottschalk (physiology, internal medicine), 1922; B.S., Roanoke College, 1942; M.D., University of Virginia, 1945; research fellow, Harvard Medical School, 1948-50; assistant resident to resident, Massachusetts General Hospital, 1950-52; fellow in cardiology, University of North Carolina, 1952-53, instructor to professor, 1953-69, Kenan professor of medicine and physiology, 1969-; John Horsley Memorial Prize, University of Virginia, 1956; Modern Medicine Distinguished Achievement Award, 1966; Homer W. Smith Award, New York Heart Association, 1970; National Academy of Sciences; Editorial Boards, *American Journal of Physiology* and *Journal of Applied Physiology*, 1961-68, *Physiological Reviews*, 1964-69, *Circulation Research*, 1970-75, *Kidney International*, 1972-77; Physiology Study Section, NIH, 1961-65, Physiology Training Committee, NIGMS, 1969-73; chairman, Special Committee on Kidney Disease, Bureau of the Budget, 1966-67; Biological and Medical Sciences Advisory Committee, NSF, 1967-69, chairman, 1969; Scientific Advisory Board, National Kidney Foundation, 1968-73; Council, American Association of University Professors, 1970-73; Ethics Committee, American Heart Association, 1971-76; Council, American Society of Nephrology, 1971-76, president, 1976; renal physiology, utilizing micropuncture techniques.

Section O—Agriculture

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

William F. Hueg, Jr.
W. Keith Kennedy

William F. Hueg, Jr. (agronomy), 1924; B.S., Cornell University, 1948; M.S., Michigan State University, 1954, Ph.D., 1959; instructor, State University of New York, Alfred, 1950-55, Michigan State University, 1955-57; associate professor and extension agronomist, University of Minnesota, 1957-62, professor, 1962-, assistant director to director, Agricultural Experiment Station, 1962-75, deputy vice president and dean, In-

stitute of Agriculture, Forestry, and Home Economics, 1974-; chairman, Committee of Nine, USDA, 1969; Governor's Pesticide Advisory Committee, 1969-; editor, *Journal of Agronomic Education*, 1970-73; Board of Directors, Minnesota Agrigrowth Council, 1970-; Governing Board, Agricultural Research Institute, 1971-74; North Central Rural Development Center Advisory Committee, 1971-74; state cochairman, North Central Research Planning and Coordinating Committee, 1972-74; Governor's Rural Development Council, 1974-; Board of Directors, NSF, 1976-.

W. Keith Kennedy (agronomy), 1919; B.S., Washington State University, 1940; M.S., Cornell University, 1941, Ph.D., 1947; assistant to associate professor, Washington State University, 1947-49; professor, Cornell University, 1949-; director, Agricultural Experiment Station, 1959-65, associate dean, New York State College of Agriculture and Life Sciences, 1965-67, dean, 1972-, vice provost, Cornell University, 1967-72; Guggenheim fellow and Fulbright research scholar, 1956-57; New York Farmers Award, 1958; U.S. delegate, 8th International Grassland Congress, 1960; Cornell University Trustees, 1965-67; chairman, Council of Administrative Heads of Agriculture, National Association of State Universities and Land-Grant Colleges, 1972-73, chairman, Division of Agriculture, 1973-74; chairman, Special Panel, Office of Technology Assessment, 1976; production, management, preservation, and utilization of forage crops.

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

Steven C. King

B. J. Liska

Steven C. King (animal genetics), 1921; B.S., University of New Hampshire, 1947; M.S., Cornell University, 1951, Ph.D., 1953; associate professor, Cornell University, 1953-56; national coordinator, Poultry Breeding Research, U.S. Department of Agriculture, Davis, Calif., 1956-59; director, Breeding Research, Mt. Hope Poultry Farm and Arbor Acres Farm, 1959-60; chief, Poultry Research Branch, USDA, Beltsville, 1960-63, assistant director, Animal Husbandry Research Division, 1963-64, 1966-68, staff scientist, Research Program Development and Evaluation Staff, Washington, D.C., 1964-66, assistant director, 1968-70, associate director, Science and Education Staff, 1970, deputy administrator, Livestock Research, 1970-72, deputy administrator, Northeastern Region, Agricultural Research Service, Beltsville, 1972-; Superior Service Unit Award, USDA, 1967, Distinguished Service Award, 1976; chairman, U.S. delegation, 13th World's Poultry Congress, U.S.S.R., 1966; U.S. Branch Council, World Poultry Science Association, 1962-70; Board of Directors, Federal Executives League, 1976-; quantitative genetics; allocation of R & D resources; management of research organizations.

B. J. Liska (food science), 1931; B.S., University of Wisconsin, 1953, M.S., 1956, Ph.D., 1957; assistant professor, University of Florida, 1957-59; assistant to associate professor, Purdue University, 1959-65, professor, 1965-, director, Food Science Institute, 1968-75, associate director, Agricultural Experiment Station, 1972-75, director, 1975-, associate dean of agriculture, 1975-; Environmental Biology and Chemistry Study Section,

USPHS, 1969-70; Babcock Hart Award Jury, Institute of Food Technologists, 1969-73, councilor, Indiana Section, 1970-74, vice chairman, Expert Panel on Food Safety and Nutrition, 1971-77; scientific editor, *Journal of Food Science*, 1971-; food chemistry, food microbiology; chemical residues in food.

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

William Perry Flatt

Keith Huston

W. I. Thomas

Robert H. White-Stevens

William Perry Flatt (agriculture), 1931; B.S., University of Tennessee, 1952; Ph.D., Cornell University, 1955; dairy cattle nutritionist and head, Energy Metabolism Laboratory, U.S. Department of Agriculture, Beltsville, 1956-68, assistant director, Animal Husbandry Research Division, 1968-69; professor and head, Department of Animal Science, University of Georgia, 1969-70, director, Agricultural Experiment Stations, 1970-; NSF fellow, 1953-55; Presidential Citation, USDA, 1965, Superior Service Award, 1968; American Feed Manufacturers Association Dairy Nutrition Research Award, 1965; Hoblitzelle National Award, 1968; chairman, Governor's Goals for Georgia-Agriculture, 1971, Southern Association of Agricultural Experiment Station Directors, 1974-75; Executive Committee, Board on Agriculture and Renewable Resources, NAS-NRC, 1975-77; Legislative Subcommittee, Experiment Station Committee on Policy, 1976-77; energy metabolism of livestock; ruminant nutrition.

Keith Huston (agriculture, dairy husbandry), 1926; B.S., University of Wisconsin, 1949, M.S., 1950, Ph.D., 1951; associate professor, Virginia Polytechnic Institute, 1951-54; associate professor to professor, Kansas State University, 1954-69, adjunct professor of pathology, 1969-75, assistant to associate director, Agricultural Experiment Station, 1969-75; professor of animal science and director, Agricultural Experiment Station, University of Minnesota, 1975-; National Distinguished Service Award, Theta Xi, 1966; Distinguished Service Award, 1973, and Order of Archers, 1975, Alpha Iota Alumni Association; Committee of Nine, USDA; North Central Association of Agricultural Experiment Station Directors; Agricultural Meteorology Study Panel, Agricultural Research Institute; Ad Hoc Joint Committee on Country Programs, Title XII Legislation, U.S. Department of State, 1976-; Study Panel 13 (Priority Ranking), World Food and Nutrition Study, NAS, 1976-; dairy cattle genetics; teratology; pathological genetics of domestic mammals.

W. I. Thomas (agronomy), 1919; B.S., Iowa State University, 1949, M.S., 1953, Ph.D., 1955; assistant professor, Iowa State University, 1955-59; associate professor, Pennsylvania State University, 1959-64, professor, 1964-, department head, 1964-59, associate director, Agricultural Experiment Station, 1969-; Budget and Finance Committee, American Society of Agronomy, 1965-69, Board of Directors, 1968-71; inheritance of differential strontium and other chemical element uptake in corn; breeding techniques for silage hybrids; gametophyte factors in cross-incompatibility in corn.

Robert H. White-Stevens (biology, agriculture), 1912; B.Sc.A., McGill University, 1933, M.Sc., 1936; Ph.D., Cornell University, 1942; research instructor to associate re-

search professor, Cornell University, 1938-46; director, Food and Nutrition, Hospital of the Bureau of Standards, 1946-48; research director, Kentucky Chemical Industries, Inc., 1948-52; assistant research director, American Cyanamid Company, 1952-69; professor of biology and chairman, Bureau of Conservation and Environmental Sciences, Cook College, Rutgers University, 1969-; Award of Merit, Animal Health Institute, 1968; Water Quality Research Council Award, 1974; Triple Award, WEDA, 1976; Executive Committee, CAST, 1974-77; chemical insults in the environment; toxicology; metabolism.

Section P-Industrial Science

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

Alfred Blumstein

Herbert I. Fusfeld

Alfred Blumstein (operations research), 1930; B.E.P., Cornell University, 1951, Ph.D., 1961; M.A., University of Buffalo, 1954; operations analyst, Aeronautical Laboratory, Cornell University, 1951-61; staff member, Office of Naval Research, 1954-55, 1957; staff member, Institute for Defense Analyses, 1961-69; professor of urban systems and operations research and director, Urban Systems Institute, Carnegie-Mellon University, 1969-; director, Science and Technology Task Force for the President's Commission on Law Enforcement and Administration of Justice, 1966-67; Council on Research, National Council on Crime and Delinquency, 1969-; Council, Operations Research Society of America, 1973-, president, ORSA, 1977-78; chairman, Panel on Research on Deterrent and Incapacitative Effects, NAS, 1975-77; operations research and systems analysis; transportation; criminal justice.

Herbert I. Fusfeld (research management), 1921; B.A., Brooklyn College, 1941; M.A., University of Pennsylvania, 1945, Ph.D., 1950; research physicist to head, Physics and Mathematics Division, Frankford Arsenal, 1941-53; senior physicist, American Machine and Foundry Company, 1953-55, director, Central Research Laboratory, 1955-59, director of research, 1959-63; director of research, Kennecott Copper Corporation, 1963-; Governing Board, American Institute of Physics, 1967-70, Manpower and Corporate Associates Committees; president, Industrial Research Institute, 1973-74, chairman, International Subcommittee for Federal Science and Technology Committee; vice president, Research and Development Advisory Council, American Management Association, 1973-75; Patent Advisory Committee, Research Corporation; chairman, Nonferrous Subcommittee on Energy Conservation, American Mining Congress; chairman, Advisory Board, Institute of Materials Research, National Bureau of Standards; National Materials Advisory Board; U.S.-U.S.S.R. Joint Commission for Scientific and Technical Cooperation, 1974-; Advisory Committee on Transnational Enterprises, U.S. State Department; Advisory Group, Organization for Economic Cooperation and Development; Section Committee, Section on Industrial Science, AAAS, 1974-, Council, 1976-78; internal friction of metals; plastic deformation and fracture; solid state physics; organization of general physical research; industrial research management.

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

Lawrence M. Kushner
Leonard Simon

Lawrence M. Kushner (physical chemistry), 1924; B.C., Queens College, 1945; A.M., Princeton University, 1947, Ph.D., 1949; physical chemist, National Bureau of Standards, 1948-56, chief, Metal Physics Section, 1956-61, chief, Metallurgy Division, 1961-66, deputy director, Institute for Applied Technology, 1966-68, director, 1968-69, deputy director, NBS, 1969-73; commissioner, U.S. Consumer Product Safety Commission, 1973-, vice chairman, 1975-76; Gold Medal, U.S. Department of Commerce, 1968; Meritorious Service Award, American National Standards Institute, 1973; Board of Directors, Washington Academy of Sciences, 1958-59, 1968-70; chairman, Governing Board, The Scientific Research Society of America, 1971-74; Science Advisory Board to the Governor of Maryland, 1972-75, Energy Committee, 1973-75; Planning Committee, ANSI, 1972; Executive Board, Sigma Xi, 1973-, national president, 1976; Electorate Nominating Committee, Section on Chemistry, AAAS, 1974-76; surface and colloid chemistry; molecular structure; crystal defects and mechanical properties of metals.

Leonard Simon (information science, technology), 1930; various newspaper and public relations positions; public relations manager, Thomas Sundheim, Inc., 1959-62; communications manager, Auerbach Corporation, 1962-66; free-lance writer/consultant, 1966-; application of information sciences and technology to basic and applied science and management systems; management, decision, and systems theory; biomedicine; physics (nuclear, particle, and astro); structure of science.

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

Evan F. Binkerd
John D. Caplan
Dayton H. Clewell
A. H. Rubenstein

Evan F. Binkerd (food science), 1919; B.S., Iowa State University, 1942; research chemist to assistant technical director, Armour & Company, Chicago, 1942-63; laboratory manager, Food Research Division, to manager, Food Research, Armour & Company, Oak Brook, Illinois, 1963-67; director of research, Armour Foods, 1967-71; vice president and director of research, Armour Food Company, Scottsdale, Arizona, 1971-; Distinguished Achievement Award, Iowa State University, 1974, Alumni Merit Award, 1975; chairman, Industry Liaison Panel, NRC, 1961, Study Section, 1971-75; chairman, Scientific Committee, American Meat Institute, 1965-73; Food Industries Liaison Committee, American Medical Association, 1968-, chairman, 1974-77; Board of Editors, Institute of Food Technologists, 1968-72, Executive Committee, 1973-76, chairman, Food Service Division, 1974, Executive Committee, Refrigerated and Frozen Foods Division, 1975-77; Technical Committee, National Livestock and Meat Board, 1970-; Awards Committee, Industrial Research Institute, 1972-75, chairman, 1974-75; regional councilor, Phi Tau Sigma, 1975-77; food science; food quality and safety; research administration; food additives.

John D. Caplan (industrial research admin-

istration), 1926; B.S., Oregon State University, 1949; M.S., Wayne State University, 1955; junior engineer to supervisor, Fuels and Lubricants Department, General Motors Research Laboratories, 1949-54, assistant department head to head, 1955-67, technical director, Basic and Applied Sciences, 1967-69, executive director, GMRL, 1969-; Crompton-Lanchester Medal, Institute of Mechanical Engineers, 1964; National Academy of Engineering, 1973; chairman, Vehicle Combustion Products Committee, Motor Vehicle Manufacturers Association, 1962-64; chairman, Vehicle Emissions Committee, Society of Automotive Engineers, 1962-65, Engineering Activity Board, 1963-69, Elmer A. Sperry Board of Award, 1971-, chairman, Horning Memorial Board of Award, 1976-77; Thomas Midgley Award Committee, American Chemical Society, 1968-; Board of Directors, Coordinating Research Council, 1970-, vice president, CRC, 1973-75, president, 1975-; combustion in heat engines; fuels; automotive air pollution.

Dayton H. Clewell (industrial research), 1912; B.S., Massachusetts Institute of Technology, 1933, Ph.D., 1936; optical research, C. K. Williams Company, 1935-38; geophysical research, Mobil Oil Corporation, 1938-52, manager, Exploration and Production Research, 1952-56, general manager of research, 1956-64, senior vice president, Research and Engineering, 1964-77; consultant, 1977-; Environmental Conservation Distinguished Service Award, American Institute of Mining, Metallurgical, and Petroleum Engineers, 1974; National Academy of Engineering, 1976; Commission on Natural Resources, NRC, 1976; geophysics; petroleum research.

A. H. Rubenstein (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 of industrial engineering and management sciences, Northwestern University, 1959-, head, Program of Research on the Management of Research and Development; Fulbright scholar, 1955; 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, NSF, 1960-68; vice president, Research and Education, Institute of Management Sciences, 1966-68; organization and economics of research and development.

Section Q-Education

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

H. Seymour Fowler
David H. Ost

H. Seymour Fowler (science education), 1919; B.S., Cornell University, 1941, M.S., 1946, Ph.D., 1951; science teacher, 1946-49; assistant professor, Southern Oregon College, 1951-52; assistant professor, Iowa State Teachers College, and director, Iowa Teachers Conservation Camp, 1952-57; professor, Pennsylvania State University, 1957-; Certificate of Achievement, Pennsylvania Department of Education, 1970; Meritorious Service Award, Pennsylvania Science Teachers Association, 1975; Distinguished Service Award, National Science Teachers Association, 1976;

vice president, National Association of Biology Teachers, 1958; Cooperative Committee on the Teaching of Science and Mathematics, AAAS, 1960-63; president, American Nature Study Society, 1967, Alpha Tau Chapter, Phi Delta Kappa, 1974, Pennsylvania Science Teachers Association, 1976; chairman, Science Materials Review Committee, NSTA, 1970-73; science education; conservation education; environmental education.

David H. Ost (biology, science education), 1940; B.A., Augsburg College, 1961; M.S., University of Michigan, 1965; Ph.D., University of Iowa, 1970; science teacher, 1961-64; instructor, Wisconsin State University, Platteville, 1965-66; assistant professor, Carthage College, 1966-67; instructor, University of Iowa, 1967-69; coordinator, Teacher Education Projects, AAAS, 1970-71; associate professor, California State College, Bakersfield, 1971-74, professor, 1974- (on leave, 1975-77); director, Center for Professional Development, California State University and Colleges System, 1975-77; Committee on Doctorate Guidelines, Association for the Education of Teachers in Science, 1972-73, Board of Directors, 1974-79, chairman, Awards Committee, 1976-77, president, AETS, 1977-78; Policy Committee, National Association for Research in Science Teaching, 1973-75, Financial Advisory Committee, 1975-77; Committee on Excellence, National Association of Biology Teachers, 1973-75, vice president, NABT, 1975, Board of Directors, 1975-77, chairman, Publications Advisory Committee, 1976-78; member-at-large, Section Committee, Section on Education, AAAS, 1977-80; relationships of science and culture as evidenced in education; science faculty motivation.

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

Fletcher G. Watson
Wayne W. Welch

Fletcher G. Watson (curriculum development), 1912; A.B., Pomona College, 1933; A.M., Harvard University, 1935, Ph.D., 1938; instructor, Harvard Observatory and Radcliffe College, 1933-41; technical aide, Radiation Laboratory, Massachusetts Institute of Technology, 1942-43; assistant to associate professor, Harvard University, 1946-57, professor, 1957-66, Henry Lee Shattuck professor of education, 1966-; Distinguished Service to Science Award, National Science Teachers Association, 1972; Steering Committees, BSCS and ESS, 1962; president, Association for the Education of Teachers in Science, 1963-64; Advisory Committee, ESCP; curriculum development and implementation in science; linguistic impediments to learning science.

Wayne W. Welch (education), 1934; B.S., University of Wisconsin, La Crosse, 1956; M.S., University of Pennsylvania, 1960; M.S., Purdue University, 1963; Ph.D., University of Wisconsin, 1966; research associate, Harvard University, 1965-69; assistant to associate professor, University of Minnesota, 1969-74, professor of educational philosophy, 1974-, assistant dean, College of Education, 1970-74; visiting professor, NSF, 1972-73; Editorial Board, National Association for Research in Science Teaching, 1969-76, Executive Board, 1970-71, president, 1973-74; member-at-large, Section Committee, Section on Education, AAAS, 1970-73, Council, 1970-73, Electorate Nominating Committee, Section Q, 1974-76, Section

Committee, Section Q, 1976–; Editorial Board, National Science Teachers Association, 1972–76; science education; program evaluation; educational measurement; decision making.

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

Marvin Druger

Rita W. Peterson

Marvin Druger (biology, genetics, science education), 1934; B.S., Brooklyn College, 1955; A.M., Columbia University, 1957, Ph.D., 1961; research fellow, Commonwealth Scientific Industrial Research Organization, Australia, 1961–62; assistant to associate professor, Syracuse University, 1962–71, professor, 1971–; Fulbright lecturer, University of Sydney, 1969–70; James Howard McGregor Prize for Teaching, Columbia University, 1959; Science Teaching Achievement Recognition Award, National Science Teachers Association, 1968; Outstanding Achievement Award, Syracuse University, 1973; placement coordinator, National Association for Research in Science Teaching, 1968–75, newsletter coordinator, 1970–72, Executive Board, 1973–76; president, Syracuse Chapter, Sigma Xi, 1970–71; Board of Directors, Eastern Region, Association for the Education of Teachers in Science, 1972–; Council and Section Committee, Section on Education, AAAS, 1973; Fulbright Advisory Committee, 1973–76; chairman, Education Committee, Genetics Society of America, 1974–; selection and fitness in *Drosophila* populations; individualized and audiotutorial instruction.

Rita W. Peterson (science education), 1931; B.S., California State University, 1964; M.A., University of California, Berkeley, 1967, Ph.D., 1969; teaching assistant to instructor, California State University, 1962–66; assistant research educator, University of California, Berkeley, 1969–72; associate professor, California State University, Hayward, 1972–; Woman of the Year, American Association of University Women, California State University, Hayward, 1964; NSF fellow, 1966–68; recording secretary, California Conservation Council, 1964–66; Editorial Board, *Journal of Research in Science Teaching*, 1973–77; president, Gamma Beta Chapter, Pi Lambda Theta, 1975–76, National Resolutions Committee, 1975–76; National Committee on Research in Science Teaching, National Science Teachers Association, 1975–76, National Committee on Chapters and Associated Groups, 1975–76; National Policy Advisory Committee, National Association for Research in Science Teaching, 1975–77, Executive Board, 1977–80; human curiosity behavior and Piagetian intellectual development; evaluation of learning and attitudes.

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

Jacob W. Blankenship

Michael R. Cohen

Gerald H. Krockover

Joyce Swartney

Jacob W. Blankenship (science education), 1933; M.Ed., East Texas State University, 1959; Ph.D., University of Texas, 1964; assistant to associate professor, Oklahoma State University, 1964–69; professor, University of Houston, 1969–; program planning specialist, Southwest Educational Development Laboratory, 1967; chairman, Science Education Sec-

tion, Oklahoma Academy of Science, 1968; vice president, Texas Academy of Science, 1971; secretary-treasurer, Association for the Education of Teachers in Science, 1972–74, president, 1976; teacher attitude toward change in science curriculum and teaching strategies.

Michael R. Cohen (science education), 1938; Ph.D., Cornell University, 1968; science teacher, 1960–63; teaching assistant, Cornell University, 1964–66, assistant director, NSF AYL, 1966–68; assistant to associate professor, Indiana University, 1968–; visiting professor, Hebrew University, 1975–76; Education Committee, National Association of Geology Teachers, 1969; program chairman, Midwest Regional Association for the Education of Teachers in Science, 1974; chairman, Short Courses/Credit Courses Committee, Central Area Convention, National Science Teachers Association, 1975; children's conception of science and teachers' conceptions of children and the effects of these conceptions on curriculum and instruction evaluation in environmental education.

Gerald H. Krockover (education, geosciences), 1942; B.A., University of Iowa, 1964, M.A., 1966, Ph.D., 1970; science teacher and coordinator, 1964–67; Science Education Center, University of Iowa, 1967–70; assistant professor, Purdue University, 1970–74, associate professor of education and geosciences, 1974–; visiting scholar, University of Texas, 1976; Outstanding Young Science Educator, Association for the Education of Teachers in Science, 1973; Outstanding Teacher Award, Eta Chapter, Kappa Delta Pi, 1973; state membership chairman, National Science Teachers Association, 1968; Board of Directors, *School Science and Mathematics*, 1970–74, departmental journal editor, 1970–; chairman, Science Education Division, Indiana Academy of Science, 1973; 1978 National Convention Committee, AETS, 1977; innovative efforts in science education: energy education; individualizing instruction.

Joyce Swartney (science education), 1935; B.S., University of Detroit, 1958; M.S., University of Pennsylvania, 1961; Ph.D., University of Wisconsin, 1968; school teacher, 1958–66; associate professor and coordinator, Secondary Science Student Teaching, Buffalo State University College, 1968–; Shell merit fellow, 1965; USOE fellow, 1966–68; corporate representative, American Association of University Women, 1969–77; president, Eastern Region, Association for the Education of Teachers in Science, 1973–74; Board of Directors, AETS, 1973–74, chairman, Ad Hoc Committee on the Preparation of Junior High and Middle School Science Teachers, 1976–77, secretary-treasurer, AETS, 1977–80; attitudes toward science teaching; nature of the teaching/learning process; effective preparation of future science teachers.

Section R–Dentistry

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

Robert James Fitzgerald

James H. Shaw

Robert James Fitzgerald (oral microbiology), 1918; B.S., Fordham University, 1939; M.S., Virginia Polytechnic Institute, 1941; Ph.D., Duke University, 1948; research microbiologist, American Cyanamid Company, 1941–45; ensign, Sanitarian Corps, T.B.

Control Division, U.S. Public Health Service, 1945–46; senior assistant scientist to science director, National Institute of Dental Research, 1948–69; professor, University of Miami School of Medicine, 1969–; chief, Dental Research Unit, V.A. Hospital, Miami, 1969–; clinical professor of endodontics, University of Florida College of Dentistry, 1972–; Research Award, Chicago Dental Society, 1960, Federation Dentaire Internationale, 1962; Dental Caries Research Award, International Association of Dental Research, 1977; Board of Directors, Association for Gnotobiotics, 1967–69; Subcommittee on Gnotobiotics, NRC, 1967–71; honorary president, Latin American Society of Oral Microbiology, 1969–70; National Caries Advisory Committee, NIDR, 1971–74, Intramural Research Advisory Council, 1977–80; Editorial Boards, *Antimicrobial Agents and Chemotherapy*, 1972–78, *Journal of Preventive Dentistry*, 1973–; oral microbiology; etiology and control of caries; gnotobiotic animals.

James H. Shaw (nutrition, oral health), 1918; B.A., McMaster University, 1939; M.S., University of Wisconsin, 1941, Ph.D., 1943; research assistant, University of Wisconsin, 1939–43, postdoctoral fellow, 1943–45; instructor to associate in nutrition, Harvard School of Dental Medicine, 1945–48, assistant professor of dental medicine, 1948–55, associate professor of biological chemistry, 1955–65, professor of nutrition, 1965–, director, Training Center for Clinical Scholars in Oral Biology, 1970–; Shinton Prize in Science, 1937; Wisconsin Alumni Research Foundation Scholarship, 1939–43; Nutrition Foundation fellow, 1943–45; NIDR Research Career Award, 1964–; member-at-large, Section on Dentistry, AAAS, 1955–58; Editorial Boards, *Proceedings of the Society for Experimental Biology and Medicine*, 1968–, *Journal of Preventive Dentistry*, 1975–; relation of nutrition to the production and prevention of oral disease in experimental animals.

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

Ernest Newbrun

Carl J. Witkop, Jr.

Ernest Newbrun (dentistry, oral biology), 1932; B.D.S., University of Sydney, 1954; M.S., University of Rochester, 1957; D.M.D., University of Alabama, 1959; Ph.D., University of California, San Francisco, 1965; research associate, Eastman Dental Dispensary, 1956–57, University of Alabama Medical Center, 1957–59; dental research fellow, National Health and Medical Research Council of Australia, Institute of Dental Research, 1960–61; NIH postdoctoral fellow, University of California, San Francisco, 1961–64, associate research dentist and associate professor, 1965–70, professor, 1970–, chairman, Section of Biological Sciences, 1972–; Research Career Development Award, NIH, 1965–70; Council, San Francisco Section, International Association for Dental Research, 1964–65, secretary, 1965–67, chairman, 1968–70; Nominating Committee, IADR, 1972–77, chairman, 1976–77; Program Committee, Subcommittee for Cariology, IADR, 1972–74, chairman, 1973–74; secretary-treasurer, Cariology Group, IADR, 1976–; oral biology; cariology and preventive dentistry; oral microbiology and ecology; bacterial polysaccharide synthesis, chemistry, function; bacterial cell adherence; bacterial cell wall; salivary gland secretions.

Carl J. Witkop, Jr. (oral pathology, genet-

ics), 1920; B.S., Michigan State College, 1944; D.D.S., University of Michigan, 1949, M.S., 1954; dental surgeon, U.S. Public Health Service, 1950; oral pathologist, National Institute of Dental Research, 1950-56, chief, Human Genetics Section, 1956-63, chief, Human Genetics Branch, 1963-66; teaching fellow, University of Michigan, 1951-54; instructor, Georgetown University, 1961-66; professor and chairman, Division of Human and Oral Genetics, School of Dentistry, University of Minnesota, 1966-, professor of dermatology, School of Medicine, 1972-; vice president, American Academy of Oral Pathology, 1960, 1972, president, 1974, associate editor, 1973-; secretary, American Society of Human Genetics, 1969-71; Oral Biology and Medicine Study Section, NIDR, 1975-; albinism and hypopigmented disorders; hereditary defects in teeth and oral facial structures; isolates; inherited defects of platelets.

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

Andrew D. Dixon
George A. Krikos

Andrew D. Dixon (dentistry), 1925; B.D.S., The Queen's University, Belfast, 1949, M.D.S., 1953, D.Sc., 1965; Ph.D., University of Manchester, England, 1958; lecturer to senior lecturer, University of Manchester, 1956-63; professor, University of North Carolina, 1963-73, assistant dean for research to associate dean, School of Dentistry, 1966-73, director, Dental Research Center, 1966-73; dean, School of Dentistry, University of California, Los Angeles, 1973-; visiting professor, University of Iowa, 1959-61; Nuffield fellow, 1953-54; Fulbright fellow, 1959-61; Commonwealth Fund fellow, 1961; Outstanding Educator of America, 1972; Council, North Carolina Section, International Association for Dental Research, 1966-71; Editorial Board, *Journal of Dental Research*, 1968-70; chairman, Dental Training Committee, NIDR, 1972-74; Peer Review Advisory Board, American Dental Association Research Institute, 1973; Electorate Nominating Committee, Section on Dentistry, AAAS, 1974-75; growth of the jaws; nerve supply to oral mucous membrane; trigeminal pathway, using neurohistological and electron microscopy methods.

George A. Krikos (experimental pathology), 1922; D.D.S., University of Pennsylvania, 1949; Ph.D., University of Rochester, 1959; assistant professor to professor of pathology, School of Dental Medicine, University of Pennsylvania, 1958-68, associate professor of oral pathology, 1962-68; professor of pathobiology, School of Dentistry, University of Colorado, 1968-75, Graduate School, 1968-, professor of oral biology, School of Dentistry, 1975-, chairman, Department of Pathobiology, 1968-73, Department of Oral Biology, 1976-77, assistant dean for basic science affairs and for faculty affairs, 1973-75, associate dean for oral biology affairs, 1975-76; assistant chief for dental research, V.A. Hospital, Denver, 1970-; NIH fellow, 1954-58; Professional Education Committee, Philadelphia Division, American Cancer Society, 1963-68; Dental Study Section, NIH, 1966-70; president, Frederick McKay Chapter, International Association for Dental Research, 1969-71; president, Pi Rho Chapter, Omicron Kappa Upsilon, University of Colorado School of Dentistry, 1976-; connective tissue; wound healing; cellular differentiation.

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

Wallace D. Armstrong
James W. Bawden
Finn Brudevold
Charles J. Burstone

Wallace D. Armstrong (biochemistry), 1905; B.A., University of Texas, 1926; Sc.M., New York University, 1928; Ph.D., University of Minnesota, 1932, M.D., 1937; assistant to instructor, University of Minnesota, 1929-37, assistant to associate professor, 1937-43, professor, 1943-74, department head, 1946-74, Regents' professor of biochemistry (emeritus), 1973-; acting director, Intramural Research, NIDR, 1974-76; Rockefeller fellow, 1950; William J. Gies Award, American College of Dentists, 1966; Biological Mineralization Award, IADR, 1966, H. Trendley Dean Award, 1967; Pierre Fauchard Academy Gold Medal, 1976; president, IADR, 1945-46; Council, AAAS, 1949-53, 1972-73, Section Committee, Section on Dentistry, 1972-73, Section on Medical Sciences, 1977-; National Advisory Committee, Atomic Energy Commission, 1959-65; calcified tissues; fluoride analysis and metabolism; radioisotope techniques and studies.

James W. Bawden (dentistry, pedodontics, physiology), 1930; D.D.S., University of Iowa, 1954, M.S., 1960, Ph.D., 1961; dental officer, USNR, 1954-56; private practice, 1956-58; U.S. Public Health Service fellow, 1958-61; assistant to associate professor, University of North Carolina, 1961-65, professor, 1965-, associate dean for research, 1963-65, dean, 1966-74; visiting professor, University of Lund, 1974-75; chairman, Council of Deans, American Association of Dental Schools, 1971; Council on Dental Education, American Dental Association, 1971-74; calcium and fluoride metabolism, with emphasis on enamel formation and trace element uptake in enamel.

Finn Brudevold (dental research), 1910; D.D.S., Oslo University, 1932; D.D.S., University of Minnesota, 1940; M.S., University of Rochester, 1954; assistant professor of prosthodontia, Tufts College Dental School, 1946-48, assistant professor of clinical dentistry, 1948-49; director of research, Eastman Dental Center, 1949-58; assistant professor, University of Rochester, 1949-58; professor, Harvard School of Dental Medicine, 1958-67; head of chemistry, Forsyth Dental Center, 1958-; Award for Basic Research in Oral Therapeutics, IADR, 1966; H. Trendley Dean Memorial Award for Fluoride Research, 1968; Outstanding Achievement Award, University of Minnesota, 1975; president-elect, IADR; Council, AAAS, 1967-68, Section Committee, Section on Dentistry, 1967-68; chemistry of teeth and saliva with respect to trace elements and fluoride; preventive dentistry.

Charles J. Burstone (dentistry), 1928; D.D.S., Washington University, 1950; M.S., Indiana University, 1955; assistant professor to professor, Indiana University, 1955-70, department chairman, 1961-70; professor of orthodontics and department head, University of Connecticut School of Dental Medicine, 1970-, professor, Department of Mechanical Engineering, 1971; chairman, Committee for Orthodontic Materials, American Association of Orthodontists, 1963-, House of Delegates, 1967-70; Dental Study Section, U.S. Public Health Service, 1965-69; president, Indiana State Society of Orthodontists, 1967-68; chairman, Section on Orthodontics and Oral

Development, American Dental Association, 1967-68; president, Great Lakes Society of Orthodontists, 1967-68; consulting editor, *Journal of Biomechanics*, 1968-; president, Indiana Chapter, Omicron Kappa Upsilon, 1969-70; bioengineering; craniofacial biology; computer applications to dentistry; soft tissue morphology and function of the face; effect of stress on bone resorption and apposition.

Section S-Pharmaceutical Sciences

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

Sidney A. Rosenbluth
Paul Zanowski

Sidney A. Rosenbluth (pharmacy), 1933; B.S., University of Oklahoma, 1955; M.S., University of Texas, 1962, Ph.D., 1966; research associate, University of Texas, 1962-66; postdoctoral research fellow, Bath University, England, 1966; assistant to associate professor, University of Tennessee, 1966-71, professor, 1971-, director, Division of Clinical Pharmacy, 1972-75, assistant dean, 1973-, director, College of Pharmacy Statewide Program, 1975-; secretary-treasurer, Section of Teachers of Pharmacy, American Association of Colleges of Pharmacy, 1971-77, Council, of Deans, 1974-; Executive Council, Rho Chi Society, 1973-75, Nominations Committee, 1975-76, national vice president, 1977-; Editorial Board, *Post Graduate Pharmacy*, 1975; Special Interest Group on Mental Health Pharmacy, American Society of Hospital Pharmacists, 1975-; development and evaluation of expanded roles for pharmacists; evaluation of effects of education on professional behavior; biological and physicochemical problems of plastics.

Paul Zanowski (pharmaceutical education), 1933; B.S., Rutgers University, 1954, M.S., 1957; Ph.D., University of Florida, 1959; instructor, University of Florida, 1958-59; research and development chemist, Noxell Corporation, 1959-64; assistant to associate professor, West Virginia University, 1964-71; professor and department chairman, Temple University, 1971-, assistant to dean, 1971-72, acting dean, School of Pharmacy, 1972-74; Lunsford Richardson Pharmacy Research Award, 1958; Mead Johnson Undergraduate Pharmacy Research Grant, 1967-68; regional advisor, Student American Pharmaceutical Association, 1968-70, 1975-; Executive Council, Rho Chi Society, 1972-74, treasurer, 1976-78; chairman, Council for Pharmacy in Pennsylvania, 1974-75; Administrative Board, Council of Sections, American Association of Colleges of Pharmacy, 1974-76, Academic Affairs Committee, 1975-78, chairman-elect, Council of Sections, 1976-77; pharmaceutical product development; liquid dispersed systems; cosmetic formulations.

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

Samuel Elkin
John T. Fay, Jr.

Samuel Elkin (pharmaceutical chemistry), 1921; B.S., Temple University, 1942, M.S., 1950; Ph.D., University of Maryland, 1958; instructor to professor and department chairman, Temple University, 1946-, director, Center for Environmental Studies, 1968-; visiting scientist, National Institute for Occupational Safety and Health, 1974-75; Man of the Year Award, Rho Pi Phi Pharmaceutical So-

ciety, 1958; Lindback Foundation Distinguished Teaching Award, 1969; Distinguished Alumnus Award, Temple University School of Pharmacy, 1972; chairman, Mid-Atlantic Consortium of Universities in Air Pollution, 1970-71; Board of Directors, Delaware Valley Section, American Industrial Hygiene Association, 1971-73, president, 1973-75; Environmental Task Force, Philadelphia Section, American Chemical Society, 1973; Council, AAAS, 1974, cochairman, Program Committee, Section on Pharmaceutical Sciences, 1975; synthesis and structure-activity relationships of nitrogen heterocyclic compounds; toxicology of environmental contaminants.

John T. Fay, Jr. (pharmacy, management, public affairs), 1930; B.S., Massachusetts College of Pharmacy, 1952, M.S., 1954, Ph.D. candidate, 1978; instructor and director, Public Relations, Massachusetts College of Pharmacy, 1954-64; director, Professional Services, American Pharmaceutical Association, 1964-66; vice president, Professional and Government Relations, McKesson & Robbins Drug Company, 1966-76; senior vice president, Pharmaceutical Card System, 1970-76; assistant secretary, Washington representative, Foremost-McKesson, Inc., 1974-76; director, Public Affairs, National Wholesale Druggists' Association, 1976-; Alumni Achievement Award, Massachusetts College of Pharmacy, 1970; Committee on Public Relations, APhA, 1959-63, chairman, 1961, Committee on Professional Relations, 1968-69; Committee on Government Relations, NWDA, 1972-75; pharmaceutical management; economics; statistics; history of associations and political thought; computerization in pharmacy; sociometrics of business/bureaucracy.

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

Leslie Z. Benet
Albert M. Mattocks

Leslie Z. Benet (pharmacokinetics, pharmaceuticals), 1937; A.B., University of Michigan, 1959, B.S., 1960, M.S., 1962; Ph.D., University of California, San Francisco, 1965; assistant professor, Washington State University, 1965-69; assistant to associate professor, University of California, San Francisco, 1969-76, professor, 1976-, department vice-chairman, 1973-; San Francisco Campus Outstanding Teacher, 1972-73; 600-Year Anniversary Medal, Nicolas Copernicus Medical Academy, 1976; secretary, Basic Pharmaceuticals Section, Academy of Pharmaceutical Sciences, American Pharmaceutical Association, 1973-74, chairman, 1976-77; chairman, Steering Committee, APhA Bioavailability Project, 1974-; associate editor, *Journal of Pharmacokinetics and Biopharmaceutics*, 1972-75, editor, 1976-; gastrointestinal absorption and renal elimination of drugs; the effect of disease states on drug pharmacokinetics; clinical pharmacokinetics.

Albert M. Mattocks (biopharmaceutics), 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 Caro-

lina, 1966-, head, Division of Pharmaceutics, 1977-; chairman, Subcommittee for 16th and 17th Revision, U.S. Pharmacopeia Committee on Revision, 1955-65; peritoneal dialysis; pharmacokinetics; renal failure.

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

Lewis P. Amsel
Ruth N. Havemeyer
Stanley A. Kaplan
Joseph P. LaRocca

Lewis P. Amsel (pharmaceutical research), 1942; B.Sc., Columbia University, 1963; Ph.D., State University of New York, Buffalo, 1969; associate research pharmacist, Sterling Winthrop Research Institute, 1969-72; assistant manager, Pharmaceutical Development Department, Pennwalt Pharmaceutical Division, 1972-74, director of department, 1974-; Diekman Prize, Olshansky Medal, 1963; pharmaceutical R & D; the application of physical, chemical, and biological principles to rational dosage form development; pharmacokinetic analysis of drugs.

Ruth N. Havemeyer (pharmacy), 1932; B.S., Columbia University, 1953; M.S., Purdue University, 1955; Ph.D., University of Wisconsin, 1960; research scientist, Squibb Institute for Medical Research, 1960-66; group leader, Syntex Research, 1966-72, product development manager, 1972-; Pfeiffer scholarship, 1951-52; Distinguished Woman of the Year (Syntex Research), 1975; Advisory Council in Natural Sciences and Mathematics, Mills College, Oakland, Calif., 1976-77; drug absorption; oral contraceptives; development of drugs for respiratory therapy.

Stanley A. Kaplan (pharmacokinetics, drug disposition), 1938; B.S., Columbia University, 1951, M.S., 1961; Ph.D. University of California, San Francisco, 1965; NIH postdoctoral fellow, St. Mary's Hospital Medical School, London, 1965-66; senior biochemist, Hoffmann-La Roche, Inc., 1966-70, research group chief, 1971-73, assistant director, Department of Biochemistry and Drug Metabolism, 1974-75, associate director, 1976-; Committee on Drug Metabolism/Biopharmaceutics (Drug Safety Subsection), Pharmaceutical Manufacturers Association; Committee on Biological Performance of Drug Products, APhA Academy of Pharmaceutical Sciences; Editorial Advisory Board, *Journal of Pharmacokinetics and Biopharmaceutics*; Editorial Board, *Clinical Pharmacology and Therapeutics*; physiological disposition of drugs, including biopharmaceutics, pharmacokinetics, pharmacodynamics, drug bioavailability, drug metabolism, and analytical techniques.

Joseph P. LaRocca (medicinal chemistry), 1920; B.S., University of Colorado, 1942; M.S., University of North Carolina, 1944; Ph.D., University of Maryland, 1948; research chemist, Naval Research Laboratory, 1947-49; associate professor, University of Georgia, 1949-50, professor, department head, and chairman, Division of Pharmacy Graduate Studies and Research, 1950-; ORINS research participant, summers, 1964-66; Gustavus A. Pfeiffer Memorial Research Fellowship, 1964-65; Council and Section Committee, Section on Pharmaceutical Sciences, AAAS, 1955-56; president, University of Georgia Chapters, Sigma Xi, 1958, Phi Kappa Phi, 1959; synthetic sedative-hypnotics; anticonvulsant compounds; chemotherapy of cancer.

Section T-Information, Computing, and Communication

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

Philip L. Altman
Robert S. Taylor (for second term)

Philip L. Altman (biology), 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. Public Health Service, Kansas City, 1952-54, National Institutes of Health, 1955-56; research analyst, NAS-NRC, 1957-59; director, Office of Biological Handbooks, Federation of American Societies for Experimental Biology, 1959-; Style Manual Committee, Council of Biology Editors, 1965-, Board of Directors, 1971-74, chairman, CBE, 1972-73, Nominations Committee, 1973-77; International Union of Biological Sciences delegate, Committee on Data for Science and Technology, 1970-, Executive Committee, 1973-, Publications Committee, 1973-, chairman, Advisory Panel on the Biosciences, 1973-, chairman, Task Group on Presentation of Biological Data in the Primary Literature, 1975-; Advisory Board, *Atlas of Protein Sequence and Structure*, National Biomedical Research Foundation, 1972-; Electorate Nominating Committee, Section on Information, Computing, and Communication, AAAS, 1974-76; analysis, editing, and compilation of data in biological and medical sciences.

Robert S. Taylor (librarianship, information science), 1918; A.B., Cornell University, 1940; M.S., Columbia University, 1950; M.A., Lehigh University, 1954; assistant to associate librarian, Lehigh University, 1950-67, associate professor and director, Center for the Information Sciences, 1962-67; professor and director, Library Center, Hampshire College, 1967-72; dean, School of Information Studies, Syracuse University, 1972-; Fulbright lecturer, Holland, 1956-57; American Society for Information Science Best Book in Information Science for *The Making of A Library*, 1972; U.S. representative, FID, Committee on Training, 1966-69; president, ASIS, 1968; Biomedical Communication Study Section, NIH, 1970-74; Council, AAAS, 1975-77, Council Committee on Fellows, 1976-77; Awards Committee, Information Industry Association; information behavior; information needs and use; education for information professionals.

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

Mary E. Corning
Joseph H. Kuney

Mary E. Corning (physical chemistry, science administration), 1925; B.A., Connecticut College for Women, 1947; M.A., Mount Holyoke College, 1949; physical chemist and technical assistant, National Bureau of Standards, 1949-58; special assistant to the Science Adviser, U.S. Department of State, 1958-60; project director to associate program director, National Science Foundation, 1960-64; chief, Publications & Translation Division, National Library of Medicine, 1964-66, special assistant to deputy director, 1966-67, director's special assistant for international programs, 1967-72, assistant director for international programs, 1972-; Federal Executive fellow, Brookings Institution, 1976; Silver Medal for Superior Service, DHEW, 1971; National Li-

brary of Medicine Director's Award, 1974; assistant editor, *Journal of the Optical Society*, 1950-60, editor-in-chief, *Analytical Subject Index*; International Commission for Optics, NAS, 1961-67, International Federation for Documentation, 1964-65, International Council of Scientific Unions Abstracting Board, 1974-; Board of Directors, Gorgas Memorial Institute of Tropical and Preventive Medicine, Inc., 1972, Executive Committee, 1972, secretary, 1974-; member-at-large, Section Committee, Section on Information, Computing, and Communication, AAAS, 1974-77; biomedical communications; science administration; policy and program development.

Joseph H. Kuney (scientific and technical publishing), 1917; B.S., University of Chicago, 1945; M.A., American University, 1962; manager, Business Operations, Books and Journals Division, American Chemical Society, 1946-73; manager, Journal and Encyclopedia Department, John Wiley & Sons, 1973-74; vice president and general manager, NFOD Division, Informatics, Inc., 1974-; professional lecturer, American University, 1967-72; Publications Committee, American Society for Information Science, 1965-72, Editorial Board, *Journal of the American Society for Information Science*, 1966-, consulting editor, *ASIS Bulletin*, 1976-; Committee on Chemical Information, NAS-NRC, 1966-73; Board of Directors, Documentation Abstracts, Inc., 1966-74; Advisory Board, Annual Review of Information Science and Technology, 1969-72; Editorial Board, *American Scientist*, 1971-; Committee on Copyrights, ACS, 1973-; Committee on Proprietary Rights, Information Industry Association, 1973-; Section Committee, Section on Information, Computing, and Communication, AAAS, 1975-76; user needs for scientific and technical information; use of computers in handling and disseminating scientific and technical information.

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

Melvin S. Day
Martha E. Williams

Melvin S. Day (information science and technology), 1923; B.S., Bates College, 1943; chemist to chief, Technical Information Extension, Atomic Energy Commission, 1946-58; director, Division of Technical Information, AEC Headquarters, 1958-60; deputy director, Office of Technical Information and Educational Programs, to deputy assistant administrator, Technology Utilization, NASA, 1960-71; head, Office of Science Information Service, National Science Foundation, 1971-72; deputy director, National Library of Medicine, 1972-; Exceptional Service Medal, NASA, 1971; Director's Award, National Library of Medicine, 1975; Superior Service Award, U.S. Public Health Service, 1976; Advisory Board, Chemical Abstracts Service, 1968-71; chairman, NATO-AGARD Committee on Scientific and Technical Information, 1970-71; chairman, Panel on Environmental Quality Information, Organization for Economic Cooperation and Development, 1970-; chairman, Committee on Scientific and Technical Information, Federal Council for Science and Technology, 1971-1972; Panel on Science and Technology Information for Developing Countries, NAS, 1971-72, Committee on Transportation Research Information Systems, 1973-74; chairman, Interagency Committee on U.N. Environmental Information Service, U.S. State Department, 1972-;

chairman, International Relations Committee, American Society for Information Science, 1972-, president, ASIS, 1976; chairman, Executive Council, Federal Library Committee, 1973-; UNESCO-UNISIST Advisory Committee, 1973-; application of computer technology to library and information systems, to medical education, and to health care.

Martha E. Williams (information science); A.B., Barat College, 1955; M.A., Loyola University, 1957; assistant to associate chemist, Illinois Institute of Technology Research Institute, 1957-61, manager, Information Sciences, 1962-72, adjunct associate professor, IIT, 1965-73, manager, Computer Search Center, 1968-72, lecturer, 1968-70; professor and director, Information Retrieval Research Laboratory, University of Illinois, 1972-; H. W. Wilson Company Best Paper of the Year Award, 1975; Committee on Chemical Information, NAS-NRC, 1970-73, chairman, Large Data Base Subcommittee, 1971-73; chairman, Cooperative Data Management Committee, Association for Scientific Information Dissemination Centers, 1970-74, Quality Control Committee, 1972, president, ASIDC, 1975-77; councilor-at-large, American Society for Information Science, 1971-72, Publications Committee, 1971-72, 1975-76, chairman, Committee on Intersociety Cooperation, 1972-73, Networks Committee, 1973-74; Publications Board, Association for Computing Machinery, 1972-76, chairman, Data Base Committee, 1973; U.S. National Committee for the International Federation for Documentation, 1974-75, 1977-78; trustee, Engineering Index, 1974-77, director, 1976-79; U.S./Mexican Joint Committee on Cooperation in STINFO, 1976-; editor, *Annual Review of Information Science and Technology*; Task Force on Scientific Information Activities, NSF, 1977; chairman, Gordon Research Conference on Chemical Information in Research, 1980; systems analysis and design; information storage and retrieval; chemical information; computational linguistics; large data bases; on-line systems.

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

Toni Carbo Bearman
Robert Lee Chartrand
Manfred Kochen
Rita G. Lerner

Toni Carbo Bearman (information science), 1942; A.B., Brown University, 1969; M.S., Drexel University, 1973, Ph.D., 1977; supervisor, Physical Sciences Library, Brown University, 1968-71; research assistant, Graduate School of Library Science, Drexel University, 1971-72, project coordinator, House Journals Project, 1972-73; bibliographic consultant, National Federation of Abstracting and Indexing Services, 1972-74, executive director, 1974-; Young Information Professional, American Society for Information Science, 1976; CONversion of SERIALS (CONSER) Advisory Committee, 1974-; Committee on InterSociety Cooperation, ASIS, 1974-, chairman, 1976-, chairman, Delaware Valley Chapter, 1976-77; Section Committee, Section on Information, Computing, and Communication, AAAS, 1975-; Editorial Board, *Serials Librarian*, 1976-.

Robert Lee Chartrand (information science), 1928; B.A., University of Missouri, 1948, M.A., 1949; technical staff, Ramo-Wooldridge, 1959-61; Federal Systems Division, IBM Corporation, 1961-64, manager,

Advanced Systems Marketing, 1964; manager, Applications Development, Planning Research Corporation, 1964-66; specialist in information sciences, Congressional Research Service, Library of Congress, 1966-; Fulbright-Hays lecturer, 1968; adjunct professor, American University, 1974-; Certificate of Appreciation, Interagency Committee on Automatic Data Processing, 1976; Editorial Board, *Law and Computer Technology*, 1968-; Advisory Committee, U.S. Civil Service Commission, 1973-; trustee, Windham College, 1974-; consulting editor, *ASIS Bulletin*, *SIAM News*; cochairman, Public Affairs Committee, ASIS; Committee on Electronic Data Processing and Legislative Applications, National Legislative Conference.

Manfred Kochen (information science), 1928; B.S., Massachusetts Institute of Technology, 1950; M.A., Columbia University, 1951, Ph.D., 1955; mathematician, Biot & Arnold, 1950-52, Paul Rosenberg Associates, 1953-54; programmer-analyst, Institute for Advanced Study, 1953-55; research scientist, IBM Research Center, 1956-64; visiting expert, Euratom, Italy, 1964; associate professor, University of Michigan, 1965-69, professor and research mathematician, 1965-; lecturer, Columbia University, 1951; First Distinguished Lecturer, American Society for Information Science, 1968, Award of Merit, 1974; chairman, Special Interest Group on Behavioral and Social Sciences, ASIS, 1972, Council, 1975-, chairman, Michigan Chapter, 1975-76; mathematical analysis of cognitive learning; information systems to help people use accumulated knowledge to make better decisions; decentralization theory.

Rita G. Lerner (information science), 1929; A.B., Radcliffe College, 1949; M.A., Columbia University, 1951, Ph.D., 1956; research associate, Columbia University, 1956-64, director of laboratories, Department of Biological Sciences, 1968; manager, Information Analysis and Retrieval, American Institute of Physics, 1964-67, Special Projects, 1969-, Planning and Development, 1969-74; Executive Committee, New York Chapter, American Society for Information Science, 1973-, chairman, New York Chapter, 1974-75; Executive Committee, Association for Scientific Information Dissemination Centers, 1974-76; chairman, Common Practices and Standards Committee, National Federation of Abstracting and Indexing Services, 1975-, vice chairman, Technical Concerns Committee, 1977-; liaison representative, ASIS and Division of Chemical Information, American Chemical Society, 1975-; information systems and information retrieval; applications of new technology to the publishing and distribution of information; data tagging and flagging; physics information and its applications outside of physics.

Section U-Statistics

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

Byron Wm. Brown, Jr.
Cuthbert Daniel

Byron Wm. Brown, Jr. (biostatistics), 1930; B.A., University of Minnesota, 1952, M.S., 1955, Ph.D., 1959; assistant professor, Louisiana State University, 1956-57; instructor to professor and head, Biometry Division, University of Minnesota, 1957-68; professor and division head, Stanford University Medical Center, 1968-; Committee on Lesions of Arte-

riosisclerosis, American Heart Association, 1957-71; associate editor, *Journal of the American Statistical Association*, 1968-72; Planetary Quarantine Advisory Committee, American Institute of Biological Sciences, 1968-72; Clinical Cancer Investigations Review Committee, National Cancer Institute, 1969-73; chairman, Biometrics Section, American Statistical Association, 1972; Biometric and Epidemiology Methodology Advisory Committee, U.S. Food and Drug Administration, 1973-; Scleroderma Criteria Cooperative Study Committee, 1973-; Section Committee, Section on Biological Sciences, AAAS, 1974-; Operations Committee, Veterans Administration Cooperative Study in Drugs and Sleep, 1975-; president, Western North American Region, Biometrics Society, 1977; statistical methodology for biomedical research, especially in bioassay, clinical trials, and health care evaluation.

Cuthbert Daniel (engineering statistics), 1904; B.S., Massachusetts Institute of Technology, 1925, M.Sc., 1926; private consultant, 1948-; lecturer, University of California, Berkeley, 1968, 1970, Columbia University, 1972; Outstanding Statistician, Chicago Chapter, American Statistical Association, 1970; S. S. Wilks Memorial Medal, 1974; Committee on Pesticide Residues, NAS-NRC, 1965, Committee on National Statistics, 1975; Cancer Clinical Investigations Review Committee, National Cancer Institute, 1973-75; design and analysis of industrial experiments; analysis of multi-factor data.

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

Richard L. Anderson
Margaret E. Martin

Richard L. Anderson (statistics), 1915; A.B., DePauw University, 1936; M.S., Iowa State College, 1938, Ph.D., 1941; instructor to professor and graduate administrator, North Carolina State University, 1941-66; professor and department chairman, University of Kentucky, 1967-; research mathematician, OSRD, Princeton University, 1944-45; visiting professor, Purdue University, 1950-51; visiting research professor, University of Georgia, 1966-67; Committee on Mathematical Tables, Institute of Mathematical Statistics, 1954-69, Council, 1955-57, 1962-64, associate editor, *Annals of Mathematical Statistics*, 1971-73, chairman, Committee on Fellows, 1974, Publications Committee, 1974-75; president, Eastern North American Region, Biometric Society, 1966; Council, Biometric Society, 1968-70, 1972-74; Census Advisory Committee, American Statistical Association, 1972-77, chairman, 1977, Board of Directors, 1976-78; Electorate Nominating Committee, Section on Statistics, AAAS, 1974; experimental designs and estimating procedures for variance components; effect of misclassification in the analysis of frequency data; time series analysis; selection of predictors in regression analysis; use of prior information in regression analysis; designs and estimators for optimal fertilizer applications.

Margaret E. Martin (statistics), 1912; A.B., Barnard College, 1933; M.A., Columbia University, 1934, Ph.D., 1942; economist, New York State Department of Labor, 1938-42; analytic statistician, U.S. Bureau of the Budget, 1943-67; assistant chief, Statistical Policy Division, Office of Management and Budget, 1967-72; executive director, Committee on National Statistics, NAS-NRC, 1973-; Director's Exceptional Service Award, U.S. Bureau

of the Budget, 1968; president, Washington Statistical Society, 1957-58; executive secretary, President's Commission to Appraise Employment and Unemployment Statistics, 1961-62; Board of Directors, American Statistical Association, 1967-69, chairman, Social Statistics Section, 1968, Policy Board, *Journal of Consumer Research*, 1974-, associate editor, *The American Statistician*, 1976-, vice president, ASA, 1977-79; statistical planning and coordination, with applications especially in demographic and economic statistics; confidentiality of statistical records.

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

Ramanathan Gnanadesikan
David C. Hoaglin

Ramanathan Gnanadesikan (statistics), 1932; B.Sc., University of Madras, 1952, M.A., 1953; Ph.D., University of North Carolina, 1957; senior research statistician, Procter and Gamble Company, 1957-59; technical staff, Bell Telephone Laboratories, 1959-, head, Statistics and Data Analysis Research Department, 1968-; adjunct associate professor, Courant Institute of Mathematical Sciences, 1961-63; visiting professor, Imperial College, London, 1969, Princeton University, 1971; president, Cincinnati Chapter, American Statistical Association, 1958-59; Census Advisory Committee, ASA, 1967-69, Advisory Board, Section on Physics and Engineering Science, 1975-77, Publications Committee, 1977-79; Council, Institute of Mathematical Statistics, 1976-78; statistical data analysis methodology, including multivariate and graphical techniques.

David C. Hoaglin (statistics), 1944; B.S., Duke University, 1966; Ph.D., Princeton University, 1971; instructor to assistant professor, Harvard University, 1970-72, lecturer, 1972-; senior research associate, Computer Research Center for Economics and Management Science, National Bureau of Economic Research, 1972-75; associate editor, *Journal of the American Statistical Association*, 1974-; program chairman, 1975, and chairman, 1977, Section on Statistical Computing, ASA, Committee on Short Courses, 1975-; Management Committee, *Current Index to Statistics*, 1975-; Section Committee, Section on Information, Computing, and Communication, AAAS, 1975-, Electorate Nominating Committee, Section on Statistics, 1977-79; data analysis; statistical computing; robust estimation.

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

David W. Alling
Stephen E. Fienberg
W. J. Hall
Paul W. Holland

David W. Alling (statistics), 1918; B.A., University of Rochester, 1940, M.D., 1948; Ph.D., Cornell University, 1959; resident, Hermann E. Biggs Memorial Hospital, 1949-56; medical officer, National Cancer Institute, 1959-60; special assistant for biometry, National Institute of Allergy and Infectious Diseases, 1960-; Sigma Xi fellow, Cornell University, 1956-57; Nominating Committee, Institute of Mathematical Statistics, 1971; Nominating Committee, Biometrics Section, American Statistical Association, 1974; sequential clinical trials; partition of chi-squared variables; application of stochastic processes.

Stephen E. Fienberg (statistics), 1942; B.Sc., University of Toronto, 1964; A.M., Harvard University, 1965, Ph.D., 1968; assistant professor, University of Chicago, 1968-72; associate professor, University of Minnesota, 1972-76, professor, 1976-, department chairman, 1972-; Advisor and Planning Committee on Social Indicators, Social Science Research Council, 1972-77; Committee on Special Papers, Institute of Mathematical Statistics, 1974-77; vice chairman, Council, American Statistical Association, 1976, coordinating and applications editor, *Journal of the American Statistical Association*, 1977-; statistical methodology; applications in biology, sociology, and criminal justice.

W. J. Hall (statistics), 1929; A.B., Johns Hopkins University, 1950; M.A., University of Michigan, 1951; Ph.D., University of North Carolina, 1955; technical staff, Bell Telephone Laboratories, 1954-55; assistant chief, Polio Surveillance Unit, Communicable Disease Center, USPHS, 1955-57; visiting assistant professor to professor, University of North Carolina, 1957-69; professor and department chairman, University of Rochester, 1969-; Fulbright scholar, 1953-54; visiting professor, Stanford University, 1967-69, University of California, Berkeley, 1969; director, Visiting Lecturer Program in Statistics, COPSS, 1965-67; associate editor, *Annals of Mathematical Statistics*, 1968-73; Council, Institute of Mathematical Statistics, 1973-75, chairman, Committee on Fellows, Committee on Operations, Nominations Committee; associate editor, *Journal of the American Statistical Association*, 1976-; president, Rochester Chapter, ASA, 1976; statistical inference, especially sequential analysis; medical applications.

Paul W. Holland (statistics), 1940; A.B., University of Michigan, 1962; M.S., Stanford University, 1964, Ph.D., 1966; assistant to associate professor, Harvard University, 1966-72; senior research associate, National Bureau of Economic Research, 1972-75; senior research scientist, Educational Testing Service, 1975-; Social Science Research Council faculty research fellow, 1970; Managing Committee, *Journal of Educational Statistics*; member-at-large, Section Committee, Section on Statistics, AAAS, 1974-77; statistical methods and model building in sociology, psychology, education, and medicine.

Section W-Atmospheric and Hydrospheric Sciences

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

Joshua Z. Holland
Julius London

Joshua Z. Holland (meteorology), 1921; B.S., University of Chicago, 1941; Ph.D., University of Washington, 1967; weather officer, U.S. Army Air Force, 1942-46; research meteorologist, U.S. Weather Bureau, 1948-55; executive secretary, Advisory Committee on Reactor Safeguards, U.S. Atomic Energy Commission, 1956-57, meteorologist, Environmental Sciences Branch, 1957-59, chief, Fallout Studies Branch, 1960-69; director, BOMAP, Environmental Science Services Administration, 1969-71; director, Center for Experiment Design and Data Analysis, Environmental Data Service, National Oceanic and Atmospheric Administration, 1971-; Silver Medal, 1956, Gold Medal, 1974, U.S. Department of Commerce; Superior Service Award, Atomic Energy Commission, 1963;

Committee on Atmospheric Chemistry, American Geophysical Union, 1960-63; Committee on Air Pollution, American Meteorological Society, 1961-63, chairman, Committee on Atmospheric Turbulence and Diffusion, 1963-65; Committee on International Programs in Atmospheric Sciences and Hydrology, NAS, 1962-63, Committee on Civil Defense, 1966-69, Panels of Committee for Global Atmospheric Research Program, 1971-72; Committee on Atmospheric Chemistry and Radioactivity, AMS, 1967-70; atmospheric boundary layer processes; air-sea interaction; tropical meteorology; turbulent transport.

Julius London (atmospheric science), 1917; B.A., Brooklyn College, 1941; M.S., New York University, 1948, Ph.D., 1951; meteorologist, U.S. Weather Bureau, 1942; meteorologist, instructor, U.S. Air Force, 1942-47; research assistant to associate professor, New York University, 1947-61; professor, University of Colorado, 1961-, department chairman, 1966-69; visiting professor, Pennsylvania State University, 1955, Eidg. Technische Hochschule, Zurich, 1967, 1974-75; International Ozone Commission, IAMAP, International Union of Geodesy and Geophysics, 1960-, secretary, International Radiation Commission, 1963-71, president, 1971-79; chairman, Panel on Ozone, Committee on Atmospheric Sciences, NAS, 1964-65; Advisory Committee on Education and Training, U.S. Weather Bureau, 1964-67; Committee on Mesosphere and Thermosphere, American Meteorological Society, 1969-, chairman, 1971; members' representative, University Corporation for Atmospheric Research, 1971-, Board of Trustees, 1971-74, Executive Committee, 1972-73, chairman, Nominating Committee, 1976-77; Board of Editors, *Contributions to Atmospheric Physics*, 1972-; application of radiative transfer and photochemistry to problems of the earth's atmosphere above 20 km; reevaluation of the earth's atmospheric radiation budget; analysis of ozone variability.

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

Eugene W. Bierly

Stanley A. Changnon, Jr.

Eugene W. Bierly (meteorology), 1931; A.B., University of Pennsylvania, 1953; M.S., University of Michigan, 1957, Ph.D., 1968; assistant, University of Michigan, 1956-60, assistant research meteorologist, 1960-63; meteorologist, U.S. Atomic Energy Commission, 1963-66; program director, Meteorology, National Science Foundation, 1966-71, head, Global Atmospheric Research Program, 1971-74, Office for Climate Dynamics, 1974-75, Climate Dynamics Research Section, 1974-; Congressional fellow, 1970-71; editor, *Meteorological Monographs*, 1972-; Council, American Meteorological Society, 1974-75; Electorate Nominating Committee, Section on Atmospheric and Hydrospheric Sciences, AAAS, 1976-78; air pollution; use of tracers in atmospheric sciences.

Stanley A. Changnon, Jr. (atmospheric sciences), 1928; B.S., University of Illinois, 1951, M.S., 1956; project director, Cloud Physics Field Project, University of Illinois, 1952-54; director, Illinois Climatic Punch Card Project, Illinois State Water Survey, 1955-57, climatologist, 1957-68, head, Atmospheric Sciences Section, 1969-; professor of geography, University of Illinois, 1973-; Robert Horton Award for Outstanding Paper in

Hydrology, American Geophysical Union, 1963; Outstanding Research Contribution, Building Research Institute, 1964; secretary, Section on Atmospheric and Hydrospheric Sciences, AAAS, 1974-77, Newcomb Cleveland Prize Committee of Judges, 1976; Council, American Meteorological Society, 1975-, Executive Committee, 1977-; president, Weather Modification Association, 1976-77; applied climatology; severe storms; weather modification; inadvertent climate modification; hydrology.

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

Donald W. Hood

R. E. Munn

Donald W. Hood (chemical oceanography), 1918; B.S., Pennsylvania State University, 1940; M.S., Oklahoma State University, 1942; Ph.D., Texas A&M University, 1950; chemist, E. I. duPont de Nemours, 1940-42; research chemist, Manhattan Project, 1942-46; instructor to professor, Texas A&M University, 1946-65; professor and director, Institute of Marine Science, University of Alaska, 1965-76; oceanographic consultant, Friday Harbor, Wash., 1977-; Faculty Achievement Award, Texas A&M University, 1963; NSF fellow, 1963-64; chairman, Alaskan Coast Commission, 1969-72; vice president, American Society of Limnology and Oceanography, 1969, Awards Committee, 1977-; editor, *Marine Science Series*, 1972-; editor-in-chief, *Marine Science Communications*, 1972-; U.S.-U.S.S.R. Committee on BioProductivity of World Oceans, 1973-; chairman, Executive Committee, Alaska Division, AAAS, 1975; organic matter in the ocean; carbon dioxide systems in the ocean; aquaculture; marine chemistry; ocean productivity.

R. E. Munn (air pollution meteorology), 1919; B.A., McMaster University, 1941; M.A., University of Toronto, 1945; Ph.D., University of Michigan, 1962; meteorologist, Meteorological Service of Canada, 1941-, chief scientist, Air Quality Research Branch, Environment Canada; visiting scientist, University of Stockholm, 1971; J. Patterson Medal, 1972; American Meteorological Society Prize in Applied Meteorology, 1972; chairman, World Meteorological Organization Working Group on Air Pollution and Atmospheric Chemistry, 1968-; Executive Committee, International Council of Scientific Unions Scientific Committee on Problems of the Environment, 1972-; cochairman, International Advisory Committee, Monitoring and Assessment Research Centre, Chelsea College, London, 1972-; editor-in-chief, *International Journal of Boundary-Layer Meteorology*, 1972-; micrometeorology.

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

James E. Caskey

Lester Machta

Margaret L. Mooney

Stanley L. Rosenthal

James E. Caskey (meteorology), 1918; B.S., Furman University, 1939; M.A., Duke University, 1940; Certificate of Professional Meteorology, University of Chicago, 1942; weather officer, U.S. Army Air Corps, 1942-45; meteorologist, U.S. Weather Bureau, 1946; assistant professor, Furman University, 1946-48; editor, *Monthly Weather Review*, U.S. Weather Bureau and Environmental Sci-

ence Services Administration, 1948-68; chief, Editorial Office, U.S. Weather Bureau, 1948-64, manager, Scientific Documentation Division, 1964-66; chief, Scientific Information and Documentation Division, ESSA, 1966-70; director, Environmental Science Information Center, National Oceanic and Atmospheric Administration, 1970-74; director of publications, American Meteorological Society, 1974-; Meritorious Service Award-Silver Medal, U.S. Department of Commerce, 1958; secretary, D.C. Chapter, AMS, 1954-55, vice chairman, 1963-64; probability models of time series of meteorological data; synoptic-dynamic meteorology; synoptic climatology; climatic change.

Lester Machta (meteorology), 1919; B.S., Brooklyn College, 1939; M.S., New York University, 1946; Sc.D., Massachusetts Institute of Technology, 1948; instructor, U.S. Army Air Force, 1941-46, University of Illinois, 1945-46; research associate, MIT, 1946-48; chief, Special Projects Branch, U.S. Weather Bureau, 1948-62; director, Air Resources Laboratories, Environmental Research Laboratories, National Oceanic and Atmospheric Administration, 1962-; Gold Medal, U.S. Department of Commerce, 1957; Distinguished Authorship Award, American Meteorological Society, 1971, Cleveland Abbey Award for Distinguished Service, 1974; Council, AMS, 1964-66; anthropogenic effects on climate; air pollution meteorology; radioactivity pollution meteorology; solar radiation for solar energy.

Margaret L. Mooney (micrometeorology, air pollution), 1929; B.A., University of California, Los Angeles, 1962; forecaster, U.S. Air Force, 1952-56; laboratory technician, University of California, Los Angeles, 1960-62; meteorologist, Department of the Army, 1962-66; meteorologist, Pacific Gas & Electric Company, 1966-71, supervising meteorologist, 1971-; Research Committee on Atmospheric Emissions and Plume Behavior from Cooling Towers, American Society of Mechanical Engineers, 1974; Committee D-22.11 Sampling and Analysis of Atmospheres; Meteorology, American Society of Testing and Materials, 1974; Committee on Industrial Meteorology, American Meteorological Society, 1976; development of diffusion modeling and improvement of sensors and recording systems.

Stanley L. Rosenthal (meteorology), 1929; B.S., City College of New York, 1951; M.S., Florida State University, 1953, Ph.D., 1958; instructor to assistant professor, Florida State University, 1957-60; staff member, Los Alamos Scientific Laboratory, 1958-59; chief Theoretical Studies, National Hurricane Research Laboratory, ERL, NOAA, 1960-75; chief, Modeling Group, National Hurricane and Experimental Meteorology Laboratory, 1975-; adjunct professor, University of Miami, 1962-; Gold Medal, U.S. Department of Commerce, 1970; Outstanding Federal Service Award, Greater Miami Federal Council, 1970; president, Miami Meteorological Society, 1961-62; World Meteorological Organization Working Group on Tropical Meteorology, 1965-71, WMO Commission of Atmospheric Sciences, 1970; U.S. Gate Advisory Panel, NAS, 1971-; member-at-large, Section on Atmospheric and Hydrospheric Sciences, AAAS, 1976-79; president-elect, Oceans and Atmospheres Section, Florida Academy of Science, 1977; tropical meteorology; dynamical meteorology; hurricanes; moist convection; numerical modeling; air-sea exchange.

Section X-General

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

John Ladd
Herbert Scoville, Jr.

John Ladd (philosophy), 1917; A.B., Harvard University, 1937, A.M., 1941, Ph.D., 1948; M.A., University of Virginia, 1941; M.A., Brown University, 1957; gastdozent, University of Göttingen, 1948-49; instructor, Harvard University, 1949-50; assistant to associate professor, Brown University, 1950-62, professor, 1962-; visiting professor, Harvard University, 1961; visiting lecturer, Smith College, 1961-62; Rockefeller fellow, 1948-49; Guggenheim fellow, 1958-59; secretary-treasurer, American Society for Political and Legal Philosophy, 1956-69, president, 1976-; Executive Committee, American Philosophical Association, 1962-64, chairman, Committee on Philosophy and Medicine, 1975-; ethics; political and legal philosophy; philosophy of medicine; Kant; philosophy and anthropology.

Herbert Scoville, Jr., (physical chemistry), 1915; B.S., Yale University, 1937; Ph.D., University of Rochester, 1942; National Defense Research Committee, 1941-45; senior scientist, U.S. Atomic Energy Commission, 1946-48; technical director, Armed Forces Special Weapons Project, 1948-55; assistant director for scientific intelligence to deputy director for research, Central Intelligence Agency, 1955-63; assistant director, Science and Technology, U.S. Arms Control and Disarmament Agency, 1963-69; director, Arms Control Program, Carnegie Endowment for International Peace, 1969-71; consultant and writer, 1969-; secretary, Federation of American Scientists, 1970-74; Board of Directors, Arms Control Association, 1971-; chairman, Council on Foreign Relations Discussion Group on SALT II, 1972-; Committee on Science in the Promotion of Human Welfare, AAAS, 1973-74, Electorate Nominating Committee, Section X, 1974-76; arms control; effects of nuclear weapons.

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

William K. Linvill
Ruth B. Pitt

William K. Linvill (systems analysis, decision-making), 1919; A.B., William Jewell College, 1941; S.M., Massachusetts Institute of Technology, 1945, Sc.D., 1949; assistant to associate professor, MIT, 1949-56; project leader, Institute for Defense Analyses, 1956-58; senior staff member, Rand Corporation, 1958-60; professor, Stanford University, 1960-, chairman, Engineering-Economic Systems Department, 1964-; Battelle Memorial Institute (sabbatical leave), 1971-72; Alumni Achievement Award, William Jewell College; Commission on Sociotechnical Systems, NAS-NRC, 1975-78; Steering Committee, Program for Continuing Engineering Education (Project PROCEED), MIT, 1975-; systems analysis; decision analysis; integration of human service delivery (transportation, health care, vocational rehabilitation, recre-

ation); technology assessment and policy analysis for resource management.

Ruth B. Pitt (psychology, education, biochemistry), 1920; B.S., Massachusetts Institute of Technology, 1939; M.A., Columbia University, 1947; M.A., University of California, San Diego, 1975, Ph.D., 1976; research assistant, Harvard Medical School, 1939-42, MIT, 1943-44; research chemist, Tennessee Eastman Corporation, 1944-45; research assistant, Columbia College of Physicians and Surgeons, 1946-49; research chemist, Evanston Hospital and Roycemore School, 1950-51; instructor, Fisher Junior College, 1952-58; chairman of physical sciences, Massachusetts General Hospital School of Nursing and Radcliffe-MGH Coordinated Program, 1958-66; biologist, laboratory manager, Education Development Corporation, 1966-67; lecturer, Northeastern University, 1966-72; science teacher, Massachusetts and California, 1967-73; research and teaching assistant, University of California, San Diego, 1973-76; assistant professor, University of Minnesota, 1976-; cognition; human information processing; cognitive development; science education.

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

Manfred D. Engelmann
Leo A. Spano

Manfred D. Engelmann (general education in the natural sciences), 1930; B.S., Northwestern University, 1953; M.S., University of Illinois, 1955; Ph.D., University of Michigan, 1960; instructor, University of Michigan, 1959-60; instructor to associate professor, Michigan State University, 1960-69, professor, 1969-; associate professor, Northwestern University, summer, 1962; microspheres in polluted soils; ecology of soil oribatid mites; supplementary audio-tutorial modules in difficult scientific concepts for academically disadvantaged students.

Leo A. Spano (chemical engineering), 1919; B.S., University of Rhode Island, 1943, M.S., 1948; graduate assistant, University of Rhode Island, 1946-48; chemical engineer, U.S. Bureau of Mines, 1948-54; chemical technologist, U.S. Army Natick Laboratories, 1954-55, physical and biological science administrator, 1955-59, supervisory physical scientist, 1959-71, physical and biological science administrator, 1974-, program manager, USNLABS Pollution Abatement Program, 1971-74, chief, Pollution Abatement Division, U.S. Army Natick Research and Development Command, 1974-; Quartermaster Research Director's Award; U.S. Army Natick Laboratories Gold Key for Engineering; U.S. Army Research and Development Achievement Award; Electrochemical, Electrical, and Mechanical Committees, Interagency Advanced Power Group; design and engineering of special protective clothing and advanced life support systems for military and space applications; physical and biochemical processes for the conversion of cellulosic materials to clean burning fuels; chemicals and food products; materials and energy conservation and recovery systems; biochemical processes for the abatement of pollutants in industrial and potable water.

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

Vernice Anderson
Roger W. Doyon
Rodney W. Nichols
George C. Sponsler

Vernice Anderson (administration); attended University of Nebraska and George Washington University; assistant to special assistant to President Truman, 1946-47; personal assistant to U.S. Ambassador-at-Large Philip C. Jessup, Department of State, 1949-53; executive secretary, National Science Board, National Science Foundation, 1953-; nominated for 1957 William A. Jump Memorial Award and Annual Federal Woman's Award, 1960, 1972; Meritorious Service Award and Distinguished Service Award, NSF; master, University of Nebraska Foundation.

Roger W. Doyon (structural engineering), 1933; B.S., University of New Hampshire, 1957; M.S., George Washington University, 1964; Diploma, Industrial College of the Armed Forces, 1974; naval architect, Naval Ship Systems Command, 1957-65; technology administrator, HQ Naval Material Command, 1965-70, head, Special Projects Branch, 1970-72, assistant director, R&D Program Management Office, 1972-74; head, General Programs Section, Division of International Programs, National Science Foundation, 1974-; management of research.

Rodney W. Nichols (research and development), 1937; A.B., Harvard University, 1959; manager, Systems Analysis Laboratory, Melpar, Inc., 1959-66; special assistant for research and technology, Office of the Secretary of Defense, 1966-70; special assistant to the president, Rockefeller University, 1970-72, vice president, 1972-; Secretary of Defense Medal, 1970; deputy chairman, U.S. delegation, U.N. Committee on Science and Technology for Development, 1973-76; Committee on International Scientific and Technical Information Programs, NAS, 1976-; Ad Hoc Committee on Support of Scientific Research, AAAS, 1972, Committee on Science and Public Policy, 1976-; Executive Committee, Board of Trustees, National Planning Association.

George C. Sponsler (physics), 1927; B.S.E., Princeton University, 1949, M.A., 1951, Ph.D., 1952; senior staff member, Lincoln Laboratory, Massachusetts Institute of Technology, 1952-56; science liaison officer, Office of Naval Research, U.S. Embassy, London, 1956-58, head, Special Projects Branch, Washington, D.C., 1958-59; senior scientist, Hoffman Science Center, 1959-60; chief scientist and director, Technical Analysis and Operations Research, U.S. Navy Bureau of Ships, 1960-63; director of advanced planning, Federal Systems Division, IBM, 1963-66, Center for Exploratory Studies, 1966-68; executive secretary, Division of Engineering, NAS-NRC, 1968-70; president, International Planning Management Corporation, 1970-; chairman, Automation Subcommittee, NAS, 1966-68, Advisory Committee to the White House Office of Emergency Preparedness, 1967-72, Civil Defense Subcommittee on the Electromagnetic Pulse, 1969-74; R&D policy analysis.