JOHN F. AHEARNE

1934–2019

Elected in 1996

"For leadership in energy policy and the safety and regulation of nuclear power."

BY PETER D. BLAIR AND MICAH D. LOWENTHAL
SUBMITTED BY THE NAE HOME SECRETARY

JOHN FRANCIS AHEARNE, a leading figure in US and international energy policy and in nuclear power, died peacefully in his sleep March 12, 2019, at the age of 84.

John was born June 14, 1934, and raised in New Britain, Connecticut, where he met his future wife, Barbara, during their senior year of high school. He received a BS in engineering physics in 1957 and an MS in physics from Cornell University in 1958. He began serving in the US Air Force in 1959 and, during his service, completed MA and PhD degrees in physics at Princeton University in 1963 and 1966, respectively.

John was an associate professor of physics at the US Air Force Academy from 1964 to 1969, simultaneously serving as adjunct professor of physics at the University of Colorado Extension and lecturer in physics at Colorado College. Following his resignation from the Air Force as a major after 11 years of service, he served on the civilian staff of the Air Defense Division of the Office of the Assistant Secretary of Defense for Systems Analysis. From 1970 to 1972, he was director of the Tactical Air Directorate, followed by positions as deputy and principal deputy assistant secretary of defense for program analysis and evaluation (1972–77) in the White House Energy Office and deputy assistant secretary of energy for resource applications (1977–78).

John was appointed by President Jimmy Carter to the US Nuclear Regulatory Commission in 1978. He chaired the commission from December 1979 to March 1981, in the wake of the accident at the Three Mile Island nuclear power plant, a critical time for establishing public trust and confidence in the agency as it dealt with complex scientific and engineering issues for public safety. He completed his distinguished career of federal service as a management consultant to the General Accounting Office (now the Government Accountability Office) on long-range planning for GAO's work on nuclear regulation, energy, research, and defense issues.

Upon retirement from federal service, John was involved in a variety of advisory and corporate boards, including the GAO Executive Council on Information Management and Technology, Department of Energy Nuclear Energy Research Advisory Committee, US-Russian Independent Scientific Commission on Disposition of Excess Weapons Plutonium, Wisconsin Energy Corporation, Wisconsin Electric Power Company, and Wisconsin Gas Corporation. He also served as chair of the University of California's President's Advisory Council for the Los Alamos, Livermore, and Berkeley National Laboratories.

In the 1980s he was appointed vice president and senior fellow of Resources for the Future, a Washington think tank, where he remained an adjunct scholar for many years. In 1989 he was recruited to become executive director of Sigma Xi, The Scientific Research Society, into which he had been inducted in 1964. He subsequently served as director of the Society's Sigma Xi Center (1997–99) and of its ethics program (until 2001). The latter position led him to write the popular ethics booklet, *The Responsible Researcher: Paths and Pitfalls* (Sigma Xi, 1999), a companion volume to the society's widely circulated guidebook, *Honor in Science*. John's booklet addresses ethical issues relevant to researchers engaged in all sectors—academia, industry, government, and nongovernmental entities. Sigma Xi recognized John's many contributions to the society by naming him executive director emeritus and featuring him in *American Scientist*'s "100 Reasons to Become a

Scientist or Engineer."[1] During his years at Sigma Xi he was also a lecturer in public policy at Duke University (1995–2006) and adjunct professor (1996–2002).

John's extensive expertise in nuclear energy, security, and risk assessment made him a highly sought-after participant in scores of efforts across the globe addressing reactor safety, international nuclear fuel supply and weapons proliferation, energy issues, comparative risk analysis, and resource allocation. He was a fellow of the American Physical Society, Society for Risk Analysis (president, 2000–01), American Association for the Advancement of Science, and American Academy of Arts and Sciences, and a member of the National Academy of Engineering, Sigma Xi, and the American Nuclear Society.

In addition to his wide-ranging professional associations, John fashioned a whole additional professional life by being an exceptionally productive and involved expert in the advisory functions of the National Academies of Sciences, Engineering, and Medicine (the National Academies). Between 1985 and 2019 he served on some 50 boards and committees, chairing many important ones, and also ensuring the quality of the National Academies' work with a diligent and extensive role in the institution's formal report review process. He was particularly effective in managing and refereeing work on controversial and divisive topics, such as ballistic missile defense, environmental risk management and communication, international security and arms control, nuclear waste and reactor safety, and engineering ethics. One colleague captured the sentiments of many when he said "He was made to be a chairman. Everyone thought he understood their perspective."

If service to the nation was a central theme and motivator in his career, promotion of international cooperation to address problems of global importance was a major interest evident in decades of engagement with international experts through direct connections and international organizations such as the International Institute of Applied Systems Analysis in Austria, and pursuit of US-Russian cooperation through the

[1] *American Scientist* 100(4):300–05 (2012).

two countries' academies. Working with Nikolai Laverov, vice president of the Russian Academy of Sciences, and several other Russian colleagues, John addressed key challenges that arose from the linked legacies of the US-Soviet Cold War rivalry—nuclear arsenals trained against each other, radioactive waste, environmental contamination—and how best to manage the potential consequences of nuclear energy by improving regulation, design, and practices for safety and proliferation prevention.

John lived a life that emphasized honesty, perseverance, and objectivity. He worked tirelessly in his faith community as well, serving as lector, Eucharistic minister, and on parish boards, steering committees, and the board of directors of the former Woodstock Theological Center at Georgetown University.

John's family was always a priority for him. He was a loving husband, father, and grandfather and proud of his children and grandchildren. He is survived by his wife Barbara; children Tom Ahearne, Paul Ahearne, Mary Ann Ahearne-Ray, Robert Ahearne, and Patricia Ahearne-Kroll; and eleven grandchildren.