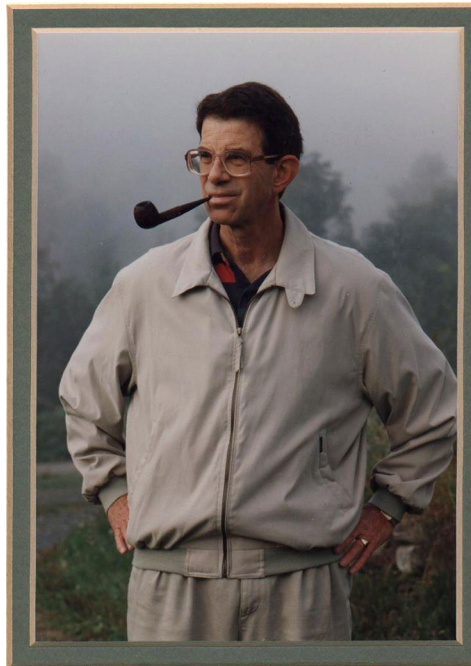


Peter C. Fishburn (1936–2021)

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We sadly report the death of Peter C. Fishburn on June 10, 2021, in Racine, Wisconsin, after a long illness. He was 84 and is survived by his wife, Janet Forsythe Fishburn, three daughters, two grandsons, and three great grandchildren.

Peter graduated from Pennsylvania State University in Industrial Engineering in 1958 and received a Ph.D. in Operations Research from the Case Institute of Technology in 1962. He worked for the Research Analysis Corporation in McLean, Virginia (1962–1970), was a Research Professor at Penn State (1971–1978), and ended his career as a mathematics researcher at Bell Laboratories in New Jersey (1978–2001), when he retired. He was a Fulbright Professor at the Technical University in Copenhagen (1966) and a visiting member of the Institute for Advanced Study in Princeton, NJ (1970–71).

Peter was amazingly prolific in several fields, including operations research, decision theory, utility theory, social choice theory, voting theory, fair division, and mathematical economics. He was the author of eight books (Fishburn 1964; Fishburn 1970; Fishburn 1973a, b; Fishburn 1982; Fishburn 1985; Fishburn 1987; Fishburn 1988 and coauthor of one (Brams and Fishburn, 1983; 2nd edn., 2007), and he wrote over 500 journal articles with more than 80 different collaborators. As a result of this work, he received numerous awards and prizes. Among the most prestigious were the Frank P. Ramsey Medal in 1987 for his work in decision analysis, and the John von Neumann Prize in 1996 for his research in operations research and management science. He was elected to the 2002 class of Fellows of the Institute for Operations Research and Management Science.

As coauthors, we each worked closely with Peter on a variety of topics over a span of more than 40 years. In 2009, we coedited a Festschrift in Peter's honor, *The Mathematics of Preference, Choice and Order* (Brams et al. 2009), with contributions in ten different fields from 48 contributors. We also worked with Maurice Salles in the conduct of an interview with Peter that gives more background regarding his career (Brams et al. 2021).

Peter's interest in, and work on, voting and social choice have contributed profoundly to these fields, which began with Fishburn (1973b), in which he made fundamental advances on understanding social choice functions. These included work on anonymity conditions, Arrow's Theorem and infinite sets of individuals, paradoxes of preferential voting, Borda's rule and Condorcet's principle, and systems of proportional representation. His research on scoring-rule sensitivity and scoring vectors is also significant. An important aspect of his work in this area was the development of models that considered the relative probabilities of observing pathological cases for specific voting procedures, which formed the basis of ongoing work by many people into this important domain of research involving voting rules.

Peter's collaboration with one of us (Brams and Fishburn, 1983; rev. ed. 2007) led to the analysis of voting rules, including two-stage voting (e.g., runoffs), single transferable vote, positional voting rules, and, most notably, approval voting, for which Peter became an advocate and helped in its implementation in several professional societies (for later developments, see Laslier and Sanver 2010). Before he died, Peter was pleased to see that approval voting, with support from the nonprofit Center for Election Science, had been implemented in municipal elections in Fargo, North Dakota, and St. Louis, Missouri, and was being considered for adoption in

other U.S. cities and states. It has also been experimented with in such countries as France and Germany, among other places.

Another area of Peter's research was on social welfare and equity, including equity axioms for public risks and cost-allocation schemes. He also investigated the properties of fair-division schemes for the allocation of both divisible goods (money, land) and indivisible goods.

Peter not only wrote numerous papers that were published in *Social Choice and Welfare*, but he continuously served on its board of editors since its inception in 1984. He was an inspiration to all of us, and his warm personality and intellectual brilliance will be sorely missed.

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