At a Meeting of the Faculty of Arts and Sciences on October 16, 2007, the following Minute was placed upon the records.

CHARLES FREDERICK MOSTELLER

Born: December 24, 1916
Died: July 23, 2006

Charles Frederick Mosteller, or Fred as he insisted we call him, was a brilliant figure in American science. He was born on December 24, 1916, in Clarksburg, West Virginia. Originally interested in engineering, Fred discovered the marvels of statistics and probability during his undergraduate and master's studies at the Carnegie Institute of Technology and continued in this field while a doctoral student in mathematics at Princeton, working under the supervision of the renowned statistician Samuel Wilks.

Fred arrived at Harvard soon after he completed his PhD in 1946. First based in the Department of Social Relations, of which he later became acting chair, he became the founding chair of the Department of Statistics at the Faculty of Arts and Sciences, chair of the Department of Biostatistics at the School of Public Health (HSPH), and then chair of the HSPH Department of Health Policy and Management until his retirement in 1987. In cheerfully undertaking these institutional burdens, Fred maintained his once-expressed view that no was not a bad answer, just the second-best one.

Fred led these varied enterprises quietly but with tenacious and prescient vision. It was he who finally persuaded the university that it needed a statistics department. Fred wrote, "How do you establish a statistics department at Harvard?—VERY SLOWLY." After creating a strong statistics group at FAS, he crossed the Charles to revitalize the Department of Biostatistics at the School of Public Health. He transformed the Biostatistics Department by recruiting Marvin Zelen and 11 outstanding young statisticians from SUNY Buffalo to HSPH, then built it into one of the premier such faculties in the nation. At the behest of then dean Howard Hiatt, he tackled the rebuilding of Health Policy and Management and laid the foundation for the fine department that it is today.

Fred was also committed to education. A superbly polished teacher and diligent mentor to a long line of distinguished graduate students, Fred was legendary for his patience and encouragement, active involvement of students in research, and capacity to find something worthwhile in each one, even those considered hopeless by everyone else. He was deeply engaged in improving statistics and biostatistics teaching at Harvard and was one of a handful of Harvard scholars asked to create the curriculum for the master of public policy program at the Kennedy School. In his course for the Kennedy School, and a shorter version for the Law School, he insisted that these future government policymakers and lawyers learn the tools needed to assess what did and did not work.

Fred made a much broader impact on statistical education by developing standards for mathematics teaching and several classic college and secondary textbooks, including those introducing statistics and probability into the American high school. Via the NBC program *Continental Classroom,* he taught college statistics to over a million viewers.

But, over time, it is the peerless statistician who will be remembered and missed most. Fred played a

formative role in the development of robust statistical methods and wrote an influential book on the subject with John Tukey. A scientific generalist, Fred developed and applied statistical principles bearing on psychology, medicine, quality control, law, history, public opinion, weather, and education. He calculated the dispersion pattern of bombs during World War II, assessed how pollsters had erred in predicting victory for Dewey, and (with David Wallace) applied Bayesian analysis to infer which of *The Federalist* papers had been authored by James Madison. Fred's collaboration with Daniel Patrick Moynihan in the 1970s yielded the milestone publication *On Equality of Educational Opportunity,* which argued that raising families out of poverty would have more impact than increasing school funding. Later work established that smaller classroom size boosted the performance of minority students. At the School of Public Health, he led several research initiatives that transformed areas of biomedical inquiry, including work with Dr. Thomas Chalmers, on costs, risks, and benefits of surgery, and research with Dr. John Bailer on statistical practices in reporting of medical studies. Fred also applied his knowledge in unconventional areas, including poker, magic, and baseball—wherever his lively mind led him.

One of Fred's greatest legacies is his impact on others through collaboration, and he famously accumulated a host of co-authors across many fields. On the occasion of Fred's seventieth birthday in 1986, Donald Berwick, professor in the HSPH Department of Health Policy and Management, celebrated Fred and his collaborative proclivities in a poem that begins:

> On a high and secret mountain on a South Pacific isle
> Lived a hermit in a mud house in a most reclusive style
> He had not clothes nor money, neither dishes nor a bed.
> And he had never even written one short monograph with Fred.

During the forty-year span of his years at Harvard, Fred chaired four departments, an unparalleled achievement. He was an extraordinary counselor and example. He made a host of indelible contributions to statistics, to education and educational policy, and to health research. And he understood before anyone else how broadly useful his models were and how they could illuminate frustrating mysteries— such as the loss of his adored Red Sox in the 1946 World Series. The university recognized his contributions by granting him an honorary degree in 1992.

Fred's wife of sixty years, Virginia, died in 2001. He is survived by his daughter and sometime collaborator, Gale; his son, William; and his grandson, Hobart Reynolds. He was a great statistician and supportive mentor whose impact on our university will be felt for years to come.

Respectfully submitted,

Richard Light
Donald B. Rubin
James Hutchinson Ware, Chair