



Stanford Report, April 5, 2000

## Memorial Resolution: Gerald J. Lieberman

(1925-1999)

Gerald J. Lieberman was born on December 31, 1925 in Brooklyn, New York after a hectic New Years Eve trip to the hospital. His parents Joseph and Ida had come to this country from Lithuania. The much wanted baby boy was the center of the family which included two dotting older sisters, Shirley and Rosalind. He grew fast--one of the tallest boys in nearby Public School 195--and achieved his adult height at about the age of 13.

At James Madison High School he was an honor student. No devotee of promptness, at high school he and his two best pals were designated Co-Captains of the Late Team. It would have been hard to predict that a remarkably effective, efficient, and punctual administrator would develop from this beginning.

The characteristic that was earliest evident was his warmth, generosity of spirit and affection for family and friends. Indeed many of his early friends became part of an extended family into which many of us have been fortunate enough to be adopted.

Surviving a highly competitive admission process, he was accepted into Cooper Union and graduated in Mechanical Engineering in 1948. He took his Master's degree in Statistics from Columbia in 1949. On graduation he went to work at the National Bureau of Standards. It was at the Bureau that he met his future wife, Helen. They married in 1950.

Albert Bowker met Jerry at the Bureau and recruited him as a graduate student in the newly formed Department of Statistics at Stanford in 1950. Jerry's doctoral dissertation in 1953 with Bowker and Abraham Girshick was on multi-station inspection schemes. This and much of his subsequent work on sampling inspection and quality control were incorporated into military standards.

Because of Jerry's work in engineering statistics, he joined the faculty of Stanford's Departments of Industrial Engineering and Statistics in 1953. This joint appointment reflected the interest of Statistics in having a link with the School of Engineering and the desire of Industrial Engineering to strengthen its statistical activities. Jerry rose from Assistant Professor to Professor in six years.

In the mid 1950s Jerry became interested in operations research, a discipline that grew out of World War II and focuses on the development and use of mathematical and scientific models for decision making. Responding to this development, Jerry played a key role in creating a Program in Operations Research in 1961 and then a Department of Operations Research in 1967. Joseph Pettit, the Dean of Engineering, appointed Jerry Department Chair, a position he held until 1975. Under his extremely effective leadership, the Department grew to become the foremost one of its kind in the country. It is a testament to his search for academic excellence that six of the nine Department faculty who were recruited during this period or before and remain at Stanford were elected to either the National Academy of Engineering or the National Academy of Sciences, and the other three won major prizes or fellowships.

While Jerry was Chair of Operations Research, he used to joke that he would never become a

dean. How wrong he was! In 1975, Halsey Royden, the Dean of the School of Humanities and Sciences, asked Jerry to help him by serving as Associate Dean. Jerry obliged and began a decade of service in the senior administration at Stanford. President Richard Lyman appointed Jerry as Vice-Provost and Dean of Research, and subsequently Vice-Provost and Dean of Graduate Studies. Among his important accomplishments during this period was his major role in arranging a budget allocation to the Engineering School that significantly reduced charges of academic-year faculty salaries to research grants and contracts, thereby reducing the dependence of that School on government support. This move was very popular with the faculty and helped to mitigate the effects of subsequent reductions in government support for basic research.

Jerry continued his university leadership after 1985 by service as Chairman of the Centennial Operating Committee, in the Academic Senate, including a year as the Chairman, and on the Advisory Board until 1992 when he accepted the request of President Donald Kennedy to join him in the administration as Provost. Gerhard Casper, who succeeded Kennedy as President in the Fall of 1992, asked Jerry to continue to serve as Provost for another year while his successor was found. Jerry obliged and helped to maintain stability in the University during this difficult period. He became Professor Emeritus on September 1, 1994.

Jerry enjoyed teaching students at all levels. He was a well organized and popular teacher who gave freely of his time to help students learn. He was a superb expositor and had the ability to merge the practical with the theoretical in a manner that enhances each. He exhibited this talent by writing innovative basic textbooks. His first two books, written with Albert Bowker, focused on statistical methods in engineering. They have been used for nearly forty years and served as the training ground for several generations of engineers. In the early 1960s, Frederick Hillier and Jerry recognized the need for an up-to-date text in operations research. They responded by writing one of the most widely used textbooks in this field with several hundred thousand copies in circulation and its 7th edition due in July. The impact of this text in educating a wide range of students in the elements of operations research has been profound.

Jerry made significant scholarly contributions to statistics and operations research, many of which bridged these two fields. Of particular note was his work on sampling inspection, quality control, regression, system reliability, replacement policies, inventory control, and stochastic assignment problems. Much of his research in the latter areas was done with his friends Cyrus Derman and Sheldon Ross. He supervised the Ph.D. dissertations of 35 students in these and other areas.

Jerry was honored often for his work. He was a recipient of the Shewhart Medal of the American Society for Quality Control in 1972 and the Cuthbertson Award of Stanford University in 1985 for service to the university. He was selected as a Fellow of the Center for Advanced Study in the Behavioral Sciences in 1985-86 and elected to the National Academy of Engineering in 1987.

Jerry had a broad record of national leadership in statistics, quality control and operations research. He held national offices in four professional societies in these fields including serving a term as President of The Institute of Management Sciences. His advice was often sought for national advisory panels and boards.

Jerry was a great sports fan. He enjoyed playing tennis for many years with Helen and his friends. He had season tickets to Stanford football and basketball games, and rarely missed a game. His love of football was so strong that the Athletics Department eventually gave him a lifetime on-field pass to Stanford football games which gave him great pleasure.

Jerry endured ALS with grace and courage during his last few years--succumbing on May 18,

1999. He is survived by Helen and their children, Diana, Janet, Joanne and Michael.

To his family and many friends, colleagues and students, Jerry leaves warm memories. Of a strong and good-natured man who engaged life fully and cheerfully. Of an involved man who touched the lives of so many of us. Of a wise man whose advice we often sought. Of a trusted man who kept his promises and wouldn't violate a confidence. Of a kind and sympathetic man who listened well and was always ready to help. Thank you, Jerry, for enriching our lives.

Committee:

Richard W. Cottle

Albert H. Hastorf

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Arthur F. Veinott, Jr.

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