## Paul Dixon Minton

# Building a Department

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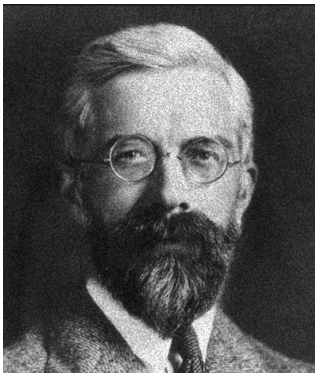
Westat

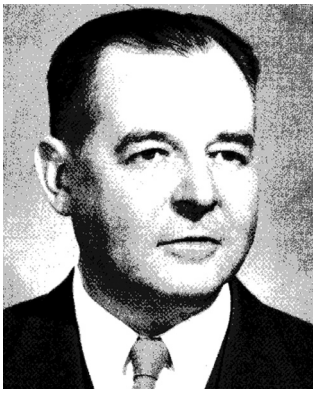
Paul Dixon Minton was born in Dallas, Texas, the third of four sons in the family of William M. and Addie Evelyn Croft Minton. Having grown up in the economically difficult times of the Great Depression, he was able to attend college only because he received an "emergency scholarship" to attend Southern Methodist University (SMU). The university was experiencing its own difficulties, struggling to fill classes, and decided to offer such scholarships to young Dallasites who had done well in high school, were recommended by their principals, and could not otherwise afford to go to school.

Minton earned a bachelor's and master's degree from SMU, a school to which he would return later to found and direct a department of statistics. His studies were interrupted by World War II, during which time he worked as a cryptanalyst for the FBI. Following the war, he returned to Dallas as an instructor and graduate student at SMU in the Department of Mathematics. It was at that point that Minton was introduced to probability and statistics by Edwin Mouzon, who had, himself, written a dissertation on statistics at the University of Illinois. After completing his master's degree, Minton was encouraged by Mouzon to continue his graduate studies in the new program in statistics at The University of North Carolina.

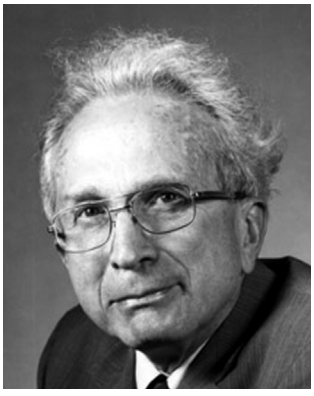
Minton earned a PhD in statistics from North Carolina State University under the tutelage of Gertrude Cox, during the time the Institute of Statistics of the Greater University of North Carolina consisted of the Department of Mathematical Statistics at UNC Chapel Hill and the Department of Experimental Statistics at NC State in Raleigh. Many famous statisticians were either faculty members or visitors when Minton was a student there, including R. A. Fisher, Harold Hotelling, William Cochran,



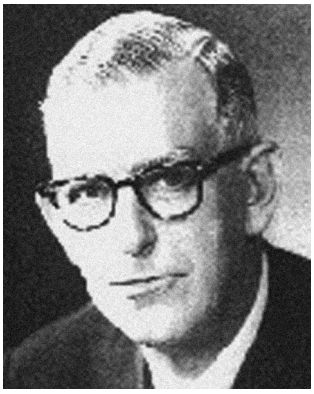
R. A. Fisher



Harold Hotelling



Jacob Wolfowitz



William Cochran

Jacob Wolfowitz, Herbert Ellis Robbins, Richard L. Anderson, Raj Chandra Bose, and others too numerous to mention.

Minton once related a story in which Fisher was sitting in the front row of the audience when he (Minton) gave his first paper as a graduate student. As if that fact alone was not enough to frighten an already nervous graduate student, the situation became "infinitely worse" (Minton's words) when Fisher left the room in the middle of the talk. Minton told another story about his final PhD oral examination, in which he had a bad case of laryngitis that he attributed to nerves. To his knowledge, he had the world's only silent orals.

Minton returned once again to SMU and began to build a set of courses in mathematical and applied statistics for students from a wide range of subject-matter departments in the university. These offerings gradually evolved into the formation of the Department of Statistics at SMU, now known as the Department of Statistical Science. At the same time, Minton began to recognize the importance of computing in statistics, and, as a result of his expressed opinions, he was assigned to direct the first computer center at SMU, which housed the Univac 1103, one of the few large scientific computers available at the time.

Funded primarily by a training grant from the National Institutes of Health for training biostatisticians, Minton established a new Department of Statistics at SMU in 1962. It was significant in obtaining faculty approval of the new department that he had provided research consultation in either statistics or computing—or both—to every department in the university. The new department offered master's and doctoral degrees following the North Carolina model and received consultation and assistance from Cox. The department subsequently expanded to offer degrees at all levels, to provide consultative assistance to faculty research and outside clients, and to conduct research in statistical theory and methods.

After 10 years of developing and administering the SMU department, Minton moved to Richmond, Virginia, to take the position of dean of the School of Arts and Sciences at Virginia Commonwealth University in 1972. There, in addition to his duties as dean, Minton formed an Institute of Statistics—a form of liaison office between the Department of Mathematical Sciences in the School of Arts and Sciences and the Department of Biostatistics in the Medical College of Virginia. He also was active in statistical consulting in local industry, including paper manufacturing, polymer plastics processors, pharmaceuticals, a national baking company, and a federal agency. He retired from VCU in 1988. That year, a special symposium was organized in his honor, attended by many former students and colleagues.

Minton was the recipient of numerous academic and professional awards, including being named a Fellow of the American Statistical Association and being an early recipient of the ASA Founders Award for service to the association and the profession. In his honor, the SMU Statistics Department created the Paul Minton Award for the student who scores highest on the basic qualifying examination. Also, the ASA created the Paul Minton Service Award, which has been given annually since 1992. He was a longtime member of the ASA, IMS, and Biometric Society. He founded the North Texas Chapter of the ASA and was active in a variety of roles during the years he was in Dallas. Later, he was very active with the Virginia Academy of Sciences (the Virginia Chapter of the ASA) and in organizing the Southern Regional Conferences on Statistics. He participated in numerous committees, task forces, councils, and boards, and he served one term as vice president of the ASA.

Minton had an active life outside the statistics profession that included a love of classical music and the ability to create terrible puns. He combined those interests with his knowledge of statistics in the following way. As part of the ASA's 150 celebration in 1989 in Washington, DC, he and some friends created a "statistical songbook," from which they performed at a banquet held on that occasion. In the hands of these statistical punsters, the tune "Bali Hai" from the musical "South Pacific" became the results for a test of statistical significance: "Barely High." These and other rewritten song lyrics can be found in the songbook, which was subsequently published in the August 1990 issue of *The American Statistician.*

In a sense, entertaining audiences with humorous statistical lyrics to well-known songs became another way for Minton to be an advocate for statistics and promote the profession to a wider world. His life and work as a statistician were summarized at his memorial service in the words of his son, Roland: "He recruited students to the newly developing field of statistics, he found money to support them during their student days, and he helped them find jobs after they graduated. Others have said of him that he was a gentle person, with a gentle temperament, but he changed the lives of hundreds, if not thousands of statistical students, just as he changed the lives of many others who knew him outside the profession."

A memorial session for Minton was held at the 2008 Joint Statistical Meetings in Denver. Papers from that session will be included in the ASA Archives Collection at Iowa State University. ■