



Statistics Department at Harvard University

Early History



The discussion below is now largely superseded by Xiao-Li Meng's article [55 Years of Harvard Statistics: Stories, Snapshots, and Statistics](#) which appears in the 2013 Springer book [Strength in](#)

[Numbers: The Rising of Academic Statistics Departments in the U.S.](#) (edited by A. Agresti and X.-L. Meng).

A faculty-wide vote of the Faculty of Arts and Sciences approved the establishment of a Department of Statistics on Lincoln's birthday, 1957, after a two-minute discussion. The process of creating a separate department had begun several years earlier. Before the establishment of the department in the Faculty of Arts and Sciences, several departments, including Economics, Mathematics, and Psychology and Social Relations all offered statistics courses.

The inaugural staff of the Statistics Department was Frederick Mosteller, Department Chair, William G. Cochran, and two assistant professors, John W. Pratt, and Arthur P. Dempster. Howard G. Raiffa had an appointment as Associated Professor, joint with the Harvard Business School. The first department tea and colloquium took place in December 1957, with Sir Ronald A. Fisher speaking on "The Underworld of Probability".

The Department's initial home was in the Reliance Bank Building at 17 Dunster Street, but after one year it moved to 2 Divinity Avenue, and again, in 1971-72 to its present site, on the 6th, 7th and 8th floors of the Science Center, One Oxford Street. Early facilities and equipment included the Statistics Library, which opened in 1958-59, supported by \$4200 in funds, and twenty one semi-automatic calculating machines, used in laboratory sections of statistics courses. A generous gift from the John Hancock Insurance Company shared with the Mathematics Department, partially funded these facilities.

In the first year, the department offered both undergraduate and graduate courses, although it did not yet have a formal undergraduate degree program. The first graduate class was slated for 1958-59 when six graduate students enrolled. Other significant events in 1958-59 included the awarding of the first Ph.D. and A.M. degrees in statistics, to Joseph A. Greenwood and Alan B. Howson, respectively. The department hired its first official support staff member, Cleo Youtz, who had already been working with Frederick Mosteller as a mathematical assistant for several years. Of the original staff (Arthur Dempster, Frederick Mosteller, and Cleo Youtz), all are still present and active at Harvard, with the exception of William Cochran who became emeritus in 1976 and died in 1980.

By 1959-1960, there were twenty active graduate students, sixteen of whom were Ph.D. candidates. The size of the department's graduate student body remains roughly the same today. Also during 1959-1960, the faculty of the two-year old Department of Statistics met with department members from nine other departments and divisions to discuss the design of the undergraduate concentration, which was formally established in 1964. Over the decades, enrollment in the undergraduate courses

has swelled to almost six hundred students per semester in the elementary service courses alone.

Undergraduate training was also available on television. In 1960-61 Frederick Mosteller took a leave of absence to make the Continental Classroom series for NBC. His lectures on probability and statistics were offered on over one hundred seventy stations, and at three hundred twenty colleges and universities. About seventy five thousand students took the course for credit, and an estimated 1.20 million viewers tuned in.

By the early 1960s, technology was changing the teaching of statistics. Mosteller expressed frustration that he did not have access to a device that he had enjoyed using at MIT - an overhead projector. However, by the early 1960's department members were taking advantage of the IBM 7090 at the Computer Center. Computers were becoming increasingly important in statistics, so Dr. Martin Schatzoff, a department alumnus and IBM staff member, was hired to teach graduate students how to use the computer for data analysis and to explore the use of computers for teaching in elementary data-processing courses. The emerging importance of computing was reflected by the fact that a computer language was permitted as a substitute for a foreign language to fulfill the Ph.D. requirement. The expanded use of computing justified the internal establishment of computer facilities in the mid-80s, and the replacement in 1991 of older equipment by SunSparc stations partially funded by the National Science Foundation.

In 1969 Arthur Dempster succeeded Frederick Mosteller as Department Chair, serving as Chair for a total of thirteen years with some short hiatuses. Peter Huber was Chair for three and one half years; Donald Rubin served as Chair from 1985 to 1994, followed by Carl Morris who is our Department Chair today. Both Herman Chernoff and William Cochran served as Acting Chair for a year. After the promotions of Arthur Dempster and John Pratt in 1963-1964, the first new senior faculty were hired in the 1980's: Peter Huber (in 1978-79), Donald Rubin (in 1984), Herman Chernoff (in 1985), and Carl Morris (in 1989). Junior faculty, long-term associates and visitors have also been part of the department over the decades: Jerome H. Klotz, Martin Schatzoff, Paul Holland, Shulamid Gross, Jay Goldman, Stephen Portnoy, David Hoaglin, Ann Mitchell, David Oakes, David Berengut, Peter Robinson (joint with Economics), Kenneth Wachter (joint with the Center for Population Studies), Marvin Zelen (joint with the Farber Center), William J. Glynn, David Pickard, Nan Laird, Victor Solo, Peter Kempthorne, Willis Davis, Shaw-Hwa Lo, Hal Stern, Alan Zaslavsky, Jun Liu, John Barnard, and most recently David van Dyk.

The Department celebrated its twenty fifth anniversary in 1982 with numerous colloquia and a banquet dinner, and in 1987, its thirtieth anniversary which coincided with Frederick Mosteller's seventieth birthday. In 1988, 1991, and 1993, the department experienced other exciting events - the awarding of honorary Harvard degrees to David Blackwell, to Sir Richard Doll, to Frederick Mosteller, and to W. Edwards Deming. These honorary degrees show recognition of the importance of statistics in modern life.

A number of alumni remain in the Boston area and many are members of the Boston Chapter of the ASA: Thomas Blackwell, Emery Brown, Ralph D'Agostino, Ree Dawson, Willis Davis, Persi Diaconis, Mark Glickman, Robert Goldman, Nan Laird, Richard Light, Patricia Meehan, Louise Ryan, Bernard Rosner, Donald Rubin, Martin Schatzoff, Chris Schmid, Judith Singer, Bing Sung, and Herb Weisberg.