



Karen Kafadar Receives ASQ Statistics Division's Hunter Award

The 2001 William G. Hunter Award was presented to Karen Kafadar at the Fall Technical Conference (FTC) in Toronto, Canada. The Statistics Division of the American Society for Quality (ASQ) established the Hunter Award in 1987 in memory of the Division's founding chair to promote, encourage and acknowledge outstanding accomplishments during a career in the broad field of applied statistics. The attributes that characterize Bill Hunter's career - consultant, educator for practitioners, communicator, and integrator of statistical thinking into other disciplines - also characterize Karen's career.

In presenting the award to Karen, Roger Hoerl made the following remarks:

After a B.S. degree in mathematics, Karen received her M.S. and Ph.D. degrees in statistics from Stanford and Princeton, respectively. She was taught well, having studied under Brad Efron at Stanford, and John Tukey at Princeton. Karen's career is very difficult to characterize or summarize, because she has had such broad and diverse influence. She has been an industrial statistician, a government statistician, and an academic statistician in both the U.S. and Europe. In each of these arenas she has excelled, and received significant peer recognition and awards. In struggling to come up with the right words to describe Karen's qualifications for the Hunter Award, I reread a letter of support from Steve Vardeman. I think Steve hit the nail on the head with his description of Karen and her impact on the profession, so I would like to borrow his words.

Like the late Professor Hunter, Karen is quite competent as a theoretician, but much prefers real applications. Like Professor Hunter, she has an engaging, outgoing personality that makes people want to try to use the statistics about which she is so enthusiastic. (That is, she's a superb ambassador for the discipline with a documented track record of success interacting with people in industry and government.) Like Professor Hunter, Karen takes seriously her responsibility to support the intellectual development of the discipline. (Karen was one of the top Technometrics Associate Editors during my Editorship, and has of course moved on to being Editor herself.) Like Professor Hunter, she contributes extensively to the corporate well being of statistical

organizations. And like Professor Hunter, Karen is simply tireless. (Frankly, the variety and amount of work that she has done in her 17-year professional career rather boggles my mind.)

Karen made the following remarks on accepting the award:

I am very honored to have received this award and to be in the company of the previous award winners whom I hold in high regard for their contributions to statistics in industry and the applied sciences. I would like to thank my nominator Tim Read; Bill Meeker and Steve Vardeman who served as "mentors" to me over the years; and most importantly members of the Hunter Award Committee, especially Roger Hoerl, who, in addition to being here today to present the award, was kind enough to call me himself with the news. (He said he was calling about "something other than Technometrics!" I honestly had no clue what it could possibly have been.)

I had the pleasure of meeting Bill Hunter in 1985, when several of my colleagues at Hewlett Packard Company, who had worked with Bill, invited him to visit HP for a day. He held a sort of "clinic": we talked about the problems we had encountered at HP, both technical and procedural ones. I still remember Bill's response to one of them as he listened to the problem and then turned to the board. With chalk in hand, he said, "Well, let's see, I always seem to understand things better when I can put them into the form of a 2x2 table...." Here was one of the leading authorities in the area of experimental design, response surface methods, and analysis of fractional factorial designs, and yet so unpretentious and straightforward. I continue to quote that sentence today to my students, and also subject them to the book he co-authored, the famous "BH-squared".

As many of you know, Bill Hunter founded ASQ's Statistics Division, and was instrumental in bringing about change in a number of areas, including the city of Madison and the Wisconsin State Government. What impressed me about these activities is that he responded to what he saw as a serious need for statistics in industry. Quoting from George Box's tribute to him in 1987 (Technometrics, pp.251-252):

"When American industry in the early 1980s showed renewed interest in the use of statistics, Bill began to devote a large proportion of his work to research and teaching on the statistical aspects of improving quality and productivity....Bill's belief that the United States must stem its decline in international competitiveness led to his founding in 1985 the Center for Quality and Productivity Improvement."

Today, the role of statisticians in industry seems so obvious, and the consequences are clear, as evidenced by successes at places where many of you work. But in 1980, it was much less obvious how, why, or if statisticians should have a role in restoring U.S. dominance in manufacturing and productivity. It *was* clear to Bill Hunter, and he responded accordingly, not only by working himself in this arena, but also by leaving a structure by which such involvement could continue after him. Are we today in a similar situation? Perhaps the "decline in international competitiveness" is today replaced by a decline in power and national security which we always took for granted, believed was unsurpassed and unparalleled, and in which we had implicit trust. And, just like in the 1980s, perhaps some of us are wondering how, why, or if statisticians can have an impact. Bill is an inspiration to all of us to look for ways that we, as statisticians, in both academics and in industry, can help to restore the

greatness, power, and security in our own countries and in the world. We will need to think of new ways to address these problems, which will likely require us to change the way we currently view our roles in our profession -- problems with different types of data, as John McGregor said, and in different areas, as Roger Hoerl and Soren Bisgaard described earlier today. And in this vein, I'd like to end by quoting one of my other mentors, one of the most influential to me personally in my life, the late John Tukey, who spoke to the New Bedford High School Class of 1974 (the high school from which he would have graduated, had his parents sent him to public school instead of having home-schooled him):

"The Chinese have a curse: `May your children live in interesting times!' My parents, your parents, and most parents for the last and next few centuries have had --- or will have --- children who live in interesting times. That means that there have been problems, there are problems, and there will be problems --- many of them very serious.

It was once fashionable to believe in progress and the near utopia that would soon be with us. Then it was fashionable to say that the world was horrible --- and getting much more so with inevitable rapidity. I tell you that it is not true that problems will soon disappear --- and equally not true that they will get much, much worse. They will change, which means that we will always be replacing familiar problems --- problems we know something about tackling --- by new ones that we do not yet know how to deal with. The most painful things are not the problems, but the need to find new ways of thought, new things to be done, and new kinds of social organization. The need to change is ever painful, and it is the essential feature of interesting times."

--- John W. Tukey, New Bedford High School Commencement
Address, June 16, 1974

I view this award as an opportunity and a challenge to follow the lead and derive inspiration from people like Bill Hunter as together we seek new ways of making an impact in these "interesting times." Thank you again.

The committee is soliciting nominations for 2002. Nominations must be received by June 30, 2002. Forms for the 2002 award are available from the William G. Hunter Award Committee Chair:

Nancy Belunis
Merck & Co, Inc.
Two Merck Drive
P.O. Box 200 WS3W-29
Whitehouse Station, NJ 08889-0200
(908) 423-3423
belunis@merck.com