

Dr. W. EDWARDS DEMING

(The Quality Control Pioneer who Changed Manufacturing in the World)

Steve Krar

He received a B.S. in electrical engineering from University of Wyoming in 1921, a Master of Science from the University of Colorado in 1925, and a Ph.D. from Yale University 1928. Deming had an internship at Bell Telephone Laboratories while studying at Yale.

While working under General MacArthur as a census consultant to the Japanese government, he taught statistical process control methods to Japanese business leaders, returning to Japan many times to consult and witness economic growth that he had predicted as a result of application of techniques learned from Walter Shewhart at Bell Laboratories.

Deming was the author of "Out of the Crisis" 1982-1986 and "The New Economics for Industry, Government, Education" 1993, which includes his System of Profound Knowledge™ and the 14 Points for Management.

In 1993, Deming founded the W. Edwards Deming Institute in Washington, D.C., where the Deming Collection at the US Library of Congress includes an extensive audiotape and videotape archive. The aim of the W. Edwards Deming Institute is to foster understanding of The Deming System of Profound Knowledge™ to advance commerce, prosperity and peace.

Deming found great inspiration in the work of Shewhart, the originator of the concepts of statistical control of processes and the related technical tool of the control chart, as Deming began to move toward the application of statistical methods to industrial production and management. Deming saw these ideas could be applied not only to manufacturing processes but also to the processes by which enterprises are led and managed. This key insight made possible his enormous influence on the economics of the industrialized world after 1950.

Deming developed the sampling techniques that were used for the first time during the 1940 United States Census. During World War II, Deming was a member of the five-man Emergency Technical Committee and worked with H. F. Dodge, A.G. Ashcroft, Leslie E. Simon, R.E. Wareham and John Gaillard in the compilation of the American War Standards. Statistical methods were widely applied during World War II, but faded into disuse a few years later.

His Work in Japan

After World War II 1947, Deming was asked by the Department of the Army to assist in the planning for the 1951 Japanese Census. While he was there, his expertise in quality control techniques, combined with his involvement in Japanese society, led to his receiving an invitation

by the Japanese Union of Scientists and Engineers (JUSE). Deming's message to Japan's chief executives: *improving quality will reduce expenses while increasing productivity and market share.*

A number of Japanese manufacturers applied his techniques widely, and experienced unheard of levels of quality and productivity. The improved quality combined with the lowered cost created new international demand for Japanese products. Deming declined the royalties from his lectures, as a result the JUSE's board of directors established the Deming Prize (December 1950) to repay him for his friendship and kindness. The Deming Prize is awarded annually to companies, that have exerted an immeasurable influence directly or indirectly on the development of quality control and quality management in Japan. In 1960, the Prime Minister of Japan (Nobusuke Kishi), awarded Dr. Deming Japan's Order of the Sacred Treasures for his contributions to Japan's industrial rebirth and its worldwide success.

Later work in the U.S.

Later, from his home in Washington D.C. Washington, D.C., Dr. Deming continued running his own consultancy business in the United States, largely unknown and unrecognized in his country of origin and work. In 1980, he was featured prominently in an NBC documentary titled "*If Japan can... Why can't we?*" about the increasing industrial competition the United States was facing from Japan. As a result of the broadcast, demand for his services increased dramatically.

Ford Motor Company was one of the first American corporations to seek help from Deming. To Ford's surprise, Deming talked not about quality but about management and told them management actions were responsible for 85% of all problems in developing better cars. After 1982, Ford came out with a profitable line of cars, the Taurus-Sable line. By 1986, Ford had become the most profitable American auto company.

In 1982, Dr. Deming had his book "Out of the Crisis" published by the Massachusetts Institute of Technology (MIT) Center for Advanced Engineering. Deming offers a theory of management based on his famous 14 Points for Management. Management must be judged not only by the quarterly dividend, but by innovative plans to stay in business, protect investment, ensure future dividends, and provide more jobs through improved product and service.

Over the course of his career, Deming received dozens of academic awards, including another honorary, Ph.D. from Oregon State University. In 1987 he was awarded the National

Medal of Technology: "For his contributions to sampling theory, and for his advocacy to corporations and nations of a general management philosophy that has resulted in improved product quality." In 1988, he received the "Distinguished Career in Science" award from the National Academy of Sciences.

Steve Krar's Personal Note

In February 1993, I had the honor and privilege of attending Dr. Deming's week-long seminar on Quality, Productivity, and Competitive Position in Phoenix, Arizona. He was a remarkable and inspirational person whose great knowledge made this seminar one of the most memorable I ever attended. Unfortunately Dr. Deming died later in 1993.