There is a widely-held belief that an organization can't implement a Total Quality Management (TQM) process during periods of financial distress, instability or uncertainty. People have concerns about the potential costs, but a greater barrier is that implementing TQM requires systemic, fundamental change. And fundamental change is something that's easy to put off, especially when there is great uncertainty.

My experience at Control Data showed me that exactly the opposite is possible. When times are bad, change is much more rapidly absorbed at the grassroots level.

But let me back up for a moment and talk about quality more generally.

American business has preached quality as a way of life for a long time. In fact, I can remember giving copies of Philip Crosby's book, "Quality is Free", to members of my staff in 1979. "Go read this book," I told them. "This is what we've got to do." But only in recent years have I truly understood and practiced the concepts of Total Quality Management.

The period since the mid-eighties has been an increasingly troubled one for the computer industry. In terms of economic forces, competitive structure and technology, the industry has never seen greater change.

Control Data felt the full impact of this change. By 1985 the Company was experiencing severe liquidity problems brought on by over-expansion in the number and scope of businesses it was pursuing. Fear for survival became very real throughout many of the Company's businesses. What this also produced, however, was a crises environment -- one where change was more readily accepted.
Here are a few things we learned about TQM during this time of crisis:

* TQM is more than a "bag of techniques" -- it is a fundamental philosophy of how people work together to achieve and organization's goals. While quality can only be made reality from below, unleashing the quality potential of people in an organization can only come from leadership. Quality is then, above all, a management responsibility.

* The CEO, or in the case of universities, the president, must make a true commitment to TQM if it is to take root in the organization. This requires personal involvement in TQM projects and processes.

* Another important aspect of implementing TQM is to let employees know that you -- the University president -- are personally and totally committed to TQM. This involves more than lofty pronouncements. It has to be demonstrated -- by making quality the theme of meetings with small groups of faculty or students...a part of every communication, written or oral, with larger groups....participation in quality efforts outside the organization.

Let me elaborate on those ideas a bit more.

Implementing TQM in industry involves changing the organization -- not "hitting the bird cage" -- but fundamental restructure: in industry removing layers of management; changing the information system, i.e. developing and implementing what is measured, who is given what data -- decentralizing information systems; and training, training, training.

All that may well require investment of new dollars; but much more important, it requires the investment of time and thought. When the overwhelming need is to cut costs that's obviously difficult. The very natural human tendency is to "make do," to stick to the old routine, the familiar because that doesn't require as much thought.
How to deal with this dilemma?

(1) A personal project by the leader (speech process).

(2) No matter what the budget pressure, keep a Quality Guru on your personal staff. That person cannot only help with your personal project, but will attract the people who are the “change elements” of the organization.

(3) Find and support “heroes”, “success stories” that can be promoted (“Find-a-Dean”).

(4) Do everything you can to make life in the organization more exciting -- more fun. (“Spoon and Fork Award”) (“Carp” Award) (Industry Week article)

(5) Care. Care about the success of your management (faculty) team. Care about your customers (students). Obviously we all feel that we can, that we are doing. Do something new, something different, something you haven’t done before. (Employee meetings).

What I’m talking about is not hypothetical. Although you might not know it from reading papers, we chalked up some real success stories in those years of crisis.

One example of the kind of progress made was Control Data’s experience in the OEM disk-drive business.

By 1989 when as part of its strategic repositioning Control Data sold this business to Seagate Technology, it was successful, vibrant and one of the industry leaders in both profitability and quality.

But four years earlier Control Data’s OEM disk-drive business was in deep trouble. In an industry considered one of the most competitive in high technology, most observers had virtually written off Control Data as a viable supplier. In 1985 alone, the OEM disk-drive business lost nearly 300 million dollars.
Quality issues — cost, as well as timely market introduction of new products -- were linked directly to the precipitous drop in the organization's market share from about 50 percent in 1981 to less than 20 percent by 1985.

These markets were under attack by Japanese manufacturers. And one of the key assault weapons was quality.

In the computer business, there have been two long-standing measures of quality. First, customer acceptance rates -- how many of the computers or disk drives shipped pass the customer's acceptance test. Second, long-term reliability expressed in Mean Time Between Failure (MTBF).

Customer acceptance rates for Control Data drives in 1985 were only about 85 percent. Japanese competitors had acceptance rates in the high 90s. Control Data was specifying products with a MTBF of 4,000-to-6,000 hours. Japanese competitors were at 10,000-to-12,000 hours. That was a two-year difference in reliability for many uses of these products.

There was no choice. Quality had to improve if the Company was to have a viable disk-drive business. And, improve it did.

In two years, thanks to TQM, acceptance rates reached 99 percent, or higher, for all products in 1987. The MTBF surpassed 40,000 hours. And, most important, the effects on profitability were equally dramatic and this business was back in the black on an operating basis. By 1988 the Small Disk Drive Division was selected as a finalist for the United State's first Malcolm Baldrige National Quality Award. By 1989, its products were going head-to-head on quality with drives made by any manufacturer. And we were winning -- both in terms of initial customer acceptance and in long-term reliability.

Last November Control Data's Canadian operations of its Government Systems Group was awarded a $850M contract to manage a multi-year, multi-vendor project to upgrade the country's military and national emergency communication system. There was a note of surprise that ran through much of the media coverage of that contract award. There would not have been had they known the this organization was one of the earliest and most aggressive in embracing TQM.
Considering these brief vignettes from the Quality Journey of GSG over the past six years:

*AYK-14 Mean Time Between Failures of 1100 to 1800 hours compared to a contractual agreement of 250 hours, while product cost dropped 40% over the past 6 years, and the number of shipments increased an order of magnitude. The Navy has set this computer as the Navy Standard Airborne computer and publicly claims this computer to be the most reliable system in the entire fleet.

*Gov’t Systems worked very closely with the Dept. of Defense in developing the DoD’s TQM (Total Quality Management); Jack Strickland, Dr. Richard Stimson, Frank Dourghty and a team of others responsible for the development of TQM for application within the Federal Government as well as Federal Government contractors used Control Data’s TQMP as their model. In his many hundreds of presentations across the country over the past several years, Jack Strickland has held Control Data Gov’t Systems up as an example of the result of taking quality seriously, even in the face of financial difficulties.

*Monthly TQMP reviews were held at all levels in the company, from the Management Board (the President’s Staff), to a review that crossed the Strategic Business Units, to reviews held internal to each SBU. The purpose of these sessions when they first began in 1985, was to act as a disciplinary step to make sure that everyone was picking up the flag and carrying it .... in very short order, however, the organizations had success stories to tell and these sessions became a place to share and get positive recognition and support.

Because employees from the President to the people working on the line attended these meetings, it showed what the priorities were and top on the priority list was process management.

Let me repeat what I feel are the 4 leadership keys to successful TQM implementation.
1) The demonstrable commitment and involvement of the person at the top; 2) The demonstrable commitment and involvement of the entire management group who are knowledgeable and practice what they preach; 3) Incessant communication to both small and large groups of employees with an easily identifiable theme; 4) External involvement and visibility of top management in promoting quality.