

*Chance (Winter 1995)*

## **In Re: We Trust**

The latest Washington buzzword has only two letters: Re. As a prefix to anything that our government does, it means: Now that we've made a mess of things, let's do it again.

The message from Vice President Gore's National Performance Review was: *Reinvent* government through *reengineering*. So now government agencies are *restructuring* and *reprioritizing* by *repositioning* revenues, *redefining* roles, and *redeploying* resources.

In the name of reengineering, ideas to save money are flowing into government. Here, at the National Academy of Sciences, the most pronounced effect was on our annual spring party. It's traditionally a lavish bash thrown so that the scientific elite can mingle with the muckamucks of government while the hoi polloi on the Academy staff gorge themselves on epicurean delights. (After years of experience, you learn how to shake hands, balance a wine glass and plate of food in the other hand, and feign gestures with your body, all while not spilling your drink or spitting out the crab meat from the crayfish etouffe in your mouth.)

For years, the party was catered by the Parisian based food designer, Haught Cuisine. But now, the party's been reengineered and the new caterer is the local 7-11. Before, we had Oysters Rockefeller, Beef Wellington, and Bananas Foster--food named after famous scientists. Now, we have greasy corn dogs, stale donuts, and Slurpees. Despite the change, however, the entire staff showed up. They thought, with all that junk food, that surely the President would make an appearance.

I wouldn't mind forgoing the food at the party, but the reengineering spilled over to our cafeteria, which is now on a healthy food kick. Instead of the all-you-can-eat buffet, where we would stuff ourselves on greasy corn dogs, stale donuts, and Slurpees, we now have an all-you-should-eat buffet, with appetizing offerings, such as tofu burgers, organic okra, and spinach sorbet. They even have a salad bar that features kudzu. (It's not only good for you to eat it, it's good for the environment.)

My particular reengineering idea for the salad bar was rejected. I told them that, if they really wanted incentives to get people to eat healthy, they shouldn't make any changes in what they're serving, but rather, instead of charging by the weight of the salad, they should charge by the weight of the individual. ("Step right up on the scales, Ma'am. I see, we're a little heavier than usual today. That'll cost you an extra 50 cents.")

Undaunted by this rejection, however, I dashed off reengineering suggestions to some of my favorite statistical institutions. To the *Annals of Statistics*, I suggested that they could save a lot of money by merely reprinting old articles. No one would notice. After all, the only one who reads an *Annals* article is the author. And, not expecting anything, they wouldn't notice either. The *Annals*, however, should still continue to accept articles for publication, since that's what

counts for tenure decisions. Besides, by the time the article would have been printed, the author is ready to retire, much less worry about tenure.

To my favorite university, (which, to protect anonymity, I will only refer to as Carnegie Mellon) I suggested that it fully adopt the principles of total quality management (TQM) in the statistics classroom. It's time that we practice what we preach. The goal of the statistics curriculum would then be simple: no defective students.

TQM says that quality is not achieved by end of the line inspection. So, there should not be any final exams. Rather, quality, TQM tells us, is achieved by infusing improvements throughout the process. So, faculty should visit the dorm rooms at night. And, if they see students wallowing in front of the TV and gorging themselves on greasy corn dogs, stale donuts, and Slurpees, they should get them instead to digest t-tests and chi squares.

If a student makes a mistake, faculty should remember that the fault is not with the individual, but with the system. Faculty should regroup and decide how to prevent such errors in the future. The problem may be that we require students, on their homework, to give the right answer. Why not just ask them for their perspective on the homework problem? Then, if they don't agree with their professor, it's not wrong--it's just another perspective.

And remember, that quality is defined by the customer and, as the customer, the student knows best how to do statistics.

In fact, now that I'm so fired up about all this, I'm ready to give up the statistics profession and become a reengineer. Maybe one day I'll be elected to the National Academy of Reengineering.