very once in a while, I’ll pick up a newspaper or newsmagazine and read about how a manufacturer cut prices 150%. Usually, I’ll just chuckle and attribute it to the same reporters who constantly claim that “most people believe” is the same as “many people believe.”

I’m less charitable, though, when I see the same errors creep into the so-called industry press—and especially when it’s the industry press covering the engineering marketplace. I’m particularly appalled at some of the recent salary surveys that have been circulated throughout the industry. In one particular survey we learn that the typical civil engineer with a doctorate has a total compensation (salary plus bonus) of $80,729. Upon closer examination, however, we discover that number is based on all of 10 responses (though I suppose that’s better than their report that the average S.E. has a total compensation of $72,500—based on fewer than five responses). To make matters worse, those responses came from an online survey. And the rest of the report adds insult to injury. For example, the survey concludes: “On a positive note, more respondents did receive insurance in 2000 than they did in 1999—96 percent of last year’s respondents received medical insurance compared with 98 percent of this year’s.” Unfortunately, given the statistical deviation based on the number of responses and the methodology of the survey, that same number could be viewed as a disaster.

Why does this type of reporting raise my ire? First, because I’m aghast that editors can report on a survey without—apparently—ever taking a basic statistics class. Second, and much more seriously, is the problem of morale in the engineering profession. Management studies show that—not surprisingly—one of the leading causes of happiness is actually money. And more specifically, people are happiest when they believe they are compensated well in comparison to others. In other words, it’s not your actual salary that matters most; rather, it’s your salary in comparison to others in your profession. (If you’re interested in some research on this topic, check out www.andrewoswald.com for a whole slew of documents.) I don’t know if the salary figures reported in the particular survey that got my dander up are high, low, or—through some happy coincidence—accurate. My gut feeling, though, is that people who fill out online salary surveys tend to be on the high side of the curve. That means the rest of the industry is going to be feeling a bit unhappy about their current salaries, and I’m skeptical that in today’s economic climate a lot of employers are going to be looking at salary “corrections” based on these skimpy surveys.

Dissatisfied engineers have an extreme negative impact on our industry. If they are unhappy they leave for other fields—resulting in a loss of quality structural engineers. And if they’re unhappy, they don’t encourage bright youngsters to enter the field. So not only does the design industry suffer today, but the impact is also felt for many years to come. It’s impossible not to react to surveys—no matter how faultily constructed. I only hope that everyone tempers their reactions based on what they know to be true.

Scott Melnick