

letters

Market Forces and Structural Engineer Salaries

The salaries quoted by Mr. Caldwell (\$200,000/year) in the October 2009 *MSC*, p. 74, are the very rare exception, not the typical salary for structural engineers. All the years I worked full time as a structural engineer (1950-1990) salaries were not even close to the value of three times the engineer's age. In 1990 a very good salary at age 63 would be $0.85 \times 63000 = \$53,500$.

Mr. Caldwell states that the structural engineer should develop expertise in something that matters, not the optimal size of a fillet weld. But the good structural engineer is very concerned with details, because a structure can fail as the result of an inadequate detail.

The structural engineer must concentrate on the problems of design, while the owner of the firm must be occupied with obtaining more work. Each is a full-time job.

Some of the engineers I knew left engineering work because of the low salaries and the constant specter of layoffs hanging over their heads. A professor I had in graduate school once brought up the ques-

tion, "Why did I go into teaching?" He explained that while employed by a consulting firm, from time to time he would notice one or more of his fellow engineers had been laid off. He did not want to work under those conditions.

At local ASCE (American Society of Civil Engineers) meetings I would talk to others who were looking for work. Yet at the same time I heard and read over and over that there is a big shortage of engineers, and that the shortage was becoming worse. This repeated claim of a shortage was in direct contrast to what I was observing. Something was clearly wrong. I felt I was walking through a dense fog.

Then on April 9, 1992, the fog lifted, and the earth was illuminated by the brilliant light of Truth. On that day the *Washington Post* came out with the article "Scientist Shortfall a Myth."

"The familiar claim that the United States faces a major shortage of scientists and engineers—often cited by National Science Foundation officials when seeking budget increases—is false and was based on a seriously flawed NSF study, seven scientists, engineers and government officials

told a congressional subcommittee yesterday."

(The quote is from the *Washington Post* of April 9, 1992.) The article goes on to say that the NSF "shortage" was to have left the nation with a "shortfall" of 675,000 engineers and scientists by 2010, and that the shortage never materialized. The article goes on to state that there was a surplus of engineers and scientists, and starting salaries for Ph.Ds in many fields were in the range of \$18,000 to \$25,000 per year. The *Washington Post* article also appears in *ASCE NEWS*, May, 1992, p. 16.

We have an obligation to tell young people the truth: Structural engineering (and other fields of engineering) provide practitioners with challenging work, requiring a high level of technical knowledge and problem solving skills. Designing or restoring a bridge or building provides a great feeling of satisfaction.

However, the employment picture is often filled with uncertainties, and finding work is not easy. There is no shortage of engineers.

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