



# President's Message

D. Edward "Ed" Davis, PE, FES President,  
Vice President and Chief Engineer, CH2M HILL

As I have mentioned repeatedly to anyone who was willing to listen, one of my priorities for this year is our K-12 Program. Why is this so important? Well, for starters, one of the primary objectives of the program is to go into our schools and encourage engineering as a career. This is also part of FES's new Strategic Plan. If we don't ensure an influx of new engineers and leaders into our profession, I feel that the health, safety and welfare of the U.S. citizenry are in peril.

Let's look at this issue from a supply and demand perspective. On the supply side, we have all heard about the dwindling number of engineering graduates in the U.S. compared to other countries such as China and India. This is restricting the supply of qualified engineers to fill vacant positions, let alone to help meet the growth in the industry that I believe we will be seeing in the coming decade. So, let's look at the demand side of the equation. Where will this increased demand come from? One of the main growth areas is our aging infrastructure. Nationwide, there is a tremendous need to repair and maintain our infrastructure, including transportation systems, water systems, wastewater systems, telecommunication systems, etc.

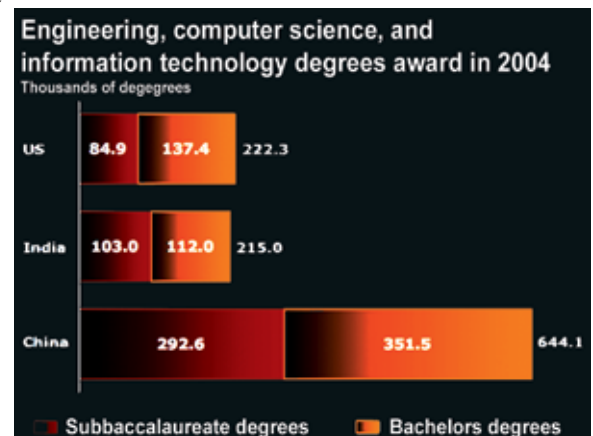
There will also be increased demands to meet the needs of growth; to tackle the climate change issues; to develop new, reliable sources of energy, and to do all of this and more in a sustainable way. Engineers are uniquely qualified to help solve all of these problems. So, while some may disagree with the future demand for engineers, I see a greater and greater need for our specific knowledge and skills.

Now let's take a closer look at the supply side of the issue. We've already discussed the decreasing number of students entering engineering programs across the country. Couple this with the increasing number of professional engineers who plan to retire in the next 10 to 15 years. Baby boomers make up a considerable percentage of the current engineers and leaders in our profession. While most companies and government agencies won't face a sudden departure of thousands of skilled workers, they will need to prepare for the loss of important experience and technical knowledge as the baby boomer generation gets ready to retire over the coming decade. It is estimated that by 2010, more than half of all workers in the U.S. will be over 40. And it is also estimated that the number of baby boomers outnumber the Generation Xers who follow them by 2 to 1.<sup>1</sup>

All of these factors seem to be converging at the same time. The decreasing interest in engineering by our youth and the increasing number of retirees will cause a shortage of engineers on the supply side. On the demand side, there will be an increasing need for engineers to solve many of the important issues facing mankind today. I'm terribly afraid that if we don't do something quickly, this supply and demand equation will become extremely unbalanced.

So, I think you can see why I feel our K-12 Program is critical to our profession. This is something we can and should do to help promote engineering as a career and to balance the supply and demand equation. Please, if you haven't already done so, get involved with our K-12 Program and help build our supply of qualified engineers. ■

Based on data from *Framing the Engineering Outsourcing Debate: Placing the United States on a Level Playing Field with China and India*, by Dr. Gary Gereffi, Vivek Wadhwa, Duke University, December 2005.



<sup>1</sup> Source: Fortune Magazine, March 2005.