What’s Going to Be Our Next “Sputnik”?

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More times than not today you read about how the U.S. is falling behind in its production of graduates trained in science, technology, engineering and mathematics. According to “Tapping America’s Potential” (TAP), a coalition of 16 leading organizations, such a situation could cause the U.S. to lose its competitive edge and its position as a global leader in technology and innovation.

A recently released TAP progress report, “Gaining Momentum, Losing Ground”, assesses three years’ progress in working towards the TAP goal of doubling the number of students earning bachelor’s degrees in Science, Technology, Engineering and Math (STEM) by 2015. The number of STEM degrees awarded to undergraduate students has only increased by 24,000 to 225,000 — a number that is not on track to meet the TAP goal of reaching 400,000 by 2015.

But for every report emphasizing what we have not done as a nation to prepare for future demands to fill high-tech jobs, one can find an assessment supporting the progress we have made. According to a new RAND Corporation study, despite perceptions that the nation is falling behind other nations in its push to produce skilled and innovative workers, the United States remains the dominant leader in science and technology worldwide. The U.S. accounts for 40 percent of the total world’s spending on scientific research and development, employs 70 percent of the world’s Nobel Prize winners, and is home to three-quarters of the world’s top 40 universities.

However, we cannot become complacent in our endeavor to continuously attract and secure talented and innovative thinkers. But where are the engineers coming from? And will we have enough to meet the demands of companies requiring highly skilled engineers.

According to a study authored by Greg Schuckman Assistant Vice President of University Relations and Director of Federal Relations and Research Advancement at the University of Central Florida, “Over the past 20 years, the number of students earning bachelors degrees in engineering has declined by almost three percent nationally,” says Schuckman.

If this trend continues, it does jeoporadize our ability to compete successfully. So what is it going to take to get the next generation of engineers interested and committed at a very early age? Perhaps another “Sputnik” program would do the trick. For those of you who weren’t born yet, the Sputnik program was a series of robotic spacecraft missions launched by the Soviet Union in 1957 and responsible for igniting the space race. Maybe our Sputnik program can be a renewed interest in “nuclear engineering” and all the ways harvesting nuclear energy can benefit us.

By nature engineers are very creative individuals and like to solve problems and

design things that matter or make a difference. I can’t think of a better area to focus on than the possibilities nuclear energy can offer. Could nuclear engineering be the next industry resurgence? I sure hope so.

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