Inspiring hearts, minds and hands early on...
Actor, producer and author John Ratzenberger started Nuts, Bolts & Thingamajigs to help breathe some new life into U.S. manufacturing.

Well-known actors sometimes catch flak when they step outside their domain to opine on real-world events. That has not been the case with John Ratzenberger.

Known for his portrayal of postman Cliff Clavin on the iconic *Cheers* television series and his distinctive voice in animated films from Pixar, Ratzenberger long ago began venturing out from Hollywood to make an impact in other ways. Wherever he's shown up, he's been enthusiastically welcomed.

Inspired by his family's manufacturing roots, Ratzenberger believed he could use his recognition to both enlighten Americans about the role manufacturing plays in a changing U.S. economy, and teach them the reasons for keeping it vital. One of his first efforts on this front was the cable television program *Made in America* (2004-2008) that took viewers on information-packed, factory-level tours of world-class U.S. manufacturing operations. He followed that with a behind-the-scenes book about the show.

Ratzenberger's latest effort, however, takes him even farther from his acting and producing roots—*and puts him much closer to sources of change*. It's a foundation called Nuts, Bolts & Thingamajigs (NBT) that he established to help develop the next generation of U.S. industrial tradespeople, and, in the process, put an end to the manufacturing skills shortage.

"John is trying to return dignity to those who work with their hands," says Jerry Shankel, NBT president, and president/CEO of the Rockford, IL-based Fabricators & Manufacturers Association, International (FMA). That's because he sees the national media and Hollywood often ridiculing those who work in the trades.

A clear vision

According to Shankel, Ratzenberger founded NBT with the express purpose of offering hands-on guidance to high-school students and others who may be looking for career paths other than college. The connection with FMA took place in early 2009 when the actor learned of a similar program the association was conducting. At that point, Ratzenberger decided he'd rather be a foundation spokesperson than a foundation executive. His call to Shankel resulted in a partnership, with FMA dropping its own program name (the "FMA Foundation") in favor of the livelier "Nuts, Bolts & Thingamajigs," with Ratzenberger as the spokesperson. (FMA handles the paperwork and other details for both NBT and FMA's 2000 members.)

"John is so passionate about this, not just for fabricating, but for all the manual trades," says Shankel. "Every mother seems to want their child to go to college," he adds, "but if everyone goes to college and becomes a brain surgeon, who's going to make sure, as John says, that warm water comes out of the tap?"

Shankel cites some alarming statistics. Consider the facts that 30% of 8th graders don't graduate from high school, and that 80% of the prison population has also not graduated from high school. "So," he asserts, "we can pay to educate or we can pay to incarcerate." As he describes it, NBT is trying to reach 8th and 9th graders to show them that there can be a career path other than college. The group does this through outreach programs, manufacturing camps and scholarships to high-school seniors and community-college students who are interested in pursuing manufacturing careers. For example, this year, the foundation and its industry partner SolidWorks have awarded scholarships totaling nearly $50,000.

Most Teens Aren't Thinking ManufacturingHold on to your hardhats. The statistics are sobering. Results of two new polls sponsored by the Nuts, Bolts & Thingamajigs Foundation clearly point to the critical need to raise teens' awareness about manufacturing careers. In a poll of 500 U.S. teens (aged 13 to 17), for example:

More than half—52%—said they have little or no interest in a manufacturing career, and

another 21% are ambivalent.
Most respondents—61%—indicated they would rather pursue a “professional” career. The same percentage also said they have never visited or toured a manufacturing facility.
Only 28% have taken an industrial arts or shop class.

Where’s this coming from?

A second NBT-sponsored survey of 1000 adults offers insight about the teens’ responses. Among its findings:
58% never made or built a toy;
60% avoid making major household repairs themselves;
57% rated their ability to fix things as average or below average. Despite this background, 56% of the responding adults said they would recommend that their sons and daughters pursue a manufacturing career or another kind of industrial work.
(Both polls were conducted by telephone in mid-September 2009.)

Walking the talk

When his schedule allows, Ratzenberger personalizes NBT's efforts by hosting fundraiser dinners and speaking with community and industry leaders.

He also has joined students at the NBT manufacturing camps—*typically multi-day events hosted by FMA-member fabricators and other manufacturers*
. On these occasions, he will spend shoulder-to-shoulder time with the participants as they learn about product design and fabricate products or parts. The campers, many of whom come from foster homes or other limited-opportunity environments, get a chance to see how much computers and other high-tech tools are used in design and fabricating operations. They also learn that today's factories are clean, well-lit, safe environments to work in and that people can derive great satisfaction in seeing what they've produced.

NBT camps began this year in California, Minnesota and Pennsylvania-—*and as many as 30 are planned for next year*
. After that, Shankel says NBT will work to expand the camp program to about 300 community colleges, which he believes "is what we need to do if we're going to have impact in the near future."

The route to that impact is straightforward, Shankel notes: Raise more money for scholarships and camps, and maximize the good will generated by John Ratzenberger. He mentions an upcoming association board meeting that would be devoted to "figuring out our schedule to see

where John can touch down with us" for the next Nuts, Bolts & Thingamajigs event. Wherever that is, Ratzenberger's message that the United States needs to act quickly to preserve its manufacturing base is sure to be delivered with gusto, backed by facts—*and wrapped in just the right amount of humor.*
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For more information about Nuts, Bolts & Thingamajigs, please visit: www.nutsandboltsfoundation.org or contact the FMA at (888) 394-4362.