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FRONT LINE

News, trends & tactics in the February 2012 issue of Industrial Engineer

A satisfying reception

USC professor finds rural hospitals eager to improve

Many industrial engineers working in healthcare have fretted about how hard it is to convince medical personnel that change is good. David Belson hasn't had that problem.

The adjunct professor of industrial and systems engineering at the University of Southern California has been working with dozens of rural hospitals to improve processes and patient care.

"They're very receptive these days to ways to improve productivity, reduce costs and so on," he said. "So in a sense there's pretty good receptivity, even at the staff level and certainly at the more senior management level. The hard part is … actually getting them to change their habits."

Still, Belson and his students, using funding from grants, have made dramatic improvements in cutting wait times and reducing waste. Belson terms these things "low-hanging fruit" – what healthcare personnel need to do, what they don't need to do, what they can throw out or keep, eliminating bottlenecks and better scheduling – that even undergraduates can do, even though he rarely uses traditional industrial engineering terms that are unfamiliar to his audience.

The payoff is nice. Often, IEs in manufacturing are happy with a 1 percent or 2 percent improvement. Belson remembers one project that allowed a site to increase the number of patients going through mammography by half.

"A 50 percent improvement with no cost is difficult to achieve in other areas, other industries," Belson said. "But in healthcare it's possible."

Various experts have estimated that between 40 percent to 60 percent of healthcare costs are waste – which is a lot considering the nation's healthcare tab is $2.5 trillion, according to USC. But, Belson said, it's hard to quantify what eliminating a job, a form or waste saves. There's no cost accounting in healthcare, Belson said. The bill for a foot surgery might be $5,000, but the hospital won't have a breakdown for the inputs used to come up with that price.

To keep costs of the outreach program down, Belson's teams use interactive video training through the Viterbi School of Engineering's distance learning network, along with site visits. Because sometimes, you just have to be there.

"In one case last week, it's kind of a minor thing, but the waiting room in the clinic, just the chairs were really set out in a poor way, and it screwed up the visibility to see what was going on and how many people were waiting," he said. "Also, to be in front of somebody and talking to them you get a certain amount of clues from their facial expressions, feelings, and who's kind of cynical as to what's going on."

And, he has found, people often pay more attention when you're in the room with them at a meeting, as opposed to viewing a video online.Belson hopes the grants keep coming. He gets the feeling that he's accomplishing some social good by helping smaller hospitals survive and maybe thrive.

"It's a satisfying payoff," he said. "These things are critical in the rural communities. If their hospital doesn't survive, their community is out of business."

Position for the top

Data shows chief operating officers often rise to executive command

Despite reports of its decline, the chief operating officer role remains a good one for those who want to move up to the CEO position.

Researchers, including Georgia Tech professor Nate Bennett, analyzed data for Fortune 1000 companies from 2009 to 2010 to find that incumbent COOs are far and away the most likely to replace CEOs. In fact, sometimes