

Industry educator

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When Doug Sutton sits down in a PCI meeting, it is rare that he doesn't recognize at least one of his former students. Sutton, who retired in 2007, taught structural engineering at Purdue University for 46 years and introduced many of today's industry leaders to the structural and aesthetic benefits of precast concrete.

"My focus has always been on teaching," Sutton says, though he admits that he didn't set out to be a professor.

Sutton received his BSCE degree in 1957 from the University of Maine and took a position at Charles A. McGuire, an engineering consulting firm in Rhode Island. He says that when he took that job he was certain of only one thing, "I was never going to work in structural design."

The firm's owners had other plans. On his first day, instead of assigning him to highway design, his area of experience, they put him in the bridge group. "I've been a structural engineer ever since," he says, laughing.

At McGuire, Sutton helped shape the U.S. interstate highway system, designing bridges that are still in use today. However, in 1958, at the urging of mentor Gordon Archibald, he took a leave of absence to pursue his master's degree at Purdue.

While there, he took a position as a teaching assistant to help pay the bills, filling in for a semester for a full-time instructor who left to pursue his PhD. At the end of that semester, Sutton was ready to get back to the world of engineering practice. In 1960, he received his master's degree, returned to McGuire, and married his wife Ellie.

"It was a very competitive environment in those days, and my graduate education gave me many opportunities," he says.

Precast concrete was growing in popularity, and Sutton was asked to design and even proof test many of the precast concrete beams that were coming into fashion.

After only a couple of years, academia called to him again. In 1961, Purdue invited Sutton to return as a full-time faculty member while pursuing his own PhD.

"It wasn't an easy decision," he says. He liked designing bridges, but he also recognized that the world was changing. Sputnik had gone up in 1957, spurring renewed interest in engineering.

Sutton says, "We realized we had to get moving as a nation."

So Sutton took his wife and newborn baby back to Indiana and began a new career as an academic that lasted until May 2007.

During his time at Purdue, Sutton taught at least 10 different courses at all levels in structural analysis, structural design, mechanics, and experimental mechanics, including a course on prestressed concrete, which he taught from the early 1980s until he retired.

He received his PhD in 1972, along with a National Science Foundation Fellowship, and has been formally recognized many times with awards for his teaching, advising, and service.

"It was a career I obviously had something of an aptitude for," he says.

Along with teaching, Sutton became an active member of PCI in the early 1970s. He was an active member of the Bridge Committee, and in 1989 he became the Bridge Committee's liaison to the Technical Activities Council (TAC). He was chair of TAC from 1999 through 2004, chaired the Research and Development Committee from 2004 to 2009, and became chair of the Education Activity Council in 2010. He was recently elected to a second term, and will hold this role until 2013.

For all his hard work and commitment, Sutton was named one of the 50 Titans of the Precast/Prestressed Concrete Industry in 2004, and in 2009 he was given the Medal of Honor, PCI's highest award.

"PCI has been a hugely positive thing in my life," Sutton says. "The familylike structure of this organization has helped move the industry forward."

It also helped him stay connected to the world of precast concrete and made him a better educator.

"Sitting on committees, I had a view of the engineering world that I couldn't get in academia," he says. "This connectivity to the real world has been very important to my career." □