

InfrastructureUSA

Guest on THE INFRA BLOG

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Conversation with Steve Anderson, Managing Director, InfrastructureUSA

Engineering Affects All Aspects of Modern Life

I think when things like Flint happen, all of a sudden some of these quality-of-life things that I think we've taken for granted for a long time suddenly come to the forefront. We're the United States; we should be leading the way in some of these things. We do need to invest for the future generations. I live here in Chicago and some of the infrastructure here has been neglected for a really, really long time and you can't just keep kicking the can down the road. At some point you really do need to make that investment. I don't think there's any aspect of modern life that isn't the result of engineering. Certainly when you look at why we have things like increasing life span, a lot of that is linked to things like clean water and all the things that relate to engineering. I think some of that is just, for a lot of people, they don't know an engineer. They haven't been exposed to it, so a lot of our work is really to showcase the value of engineering as a profession and really how you can impact lives through a career as an engineer.

Every Engineer Can Spread the Word

We are a part of an organization that is all the various engineering societies, and of course the civil engineers are a big part. We all know their *Infrastructure Report Card*, which does not paint a great picture for our infrastructure, particularly in things like the water system and transit and inland waterways and a number of things. When something happens like Flint or the levee system in New Orleans it's like, "Oh, well how could this happen?" Well, the information is out there; this is definitely an area that needs to have some focus. We do need to be out there, talking within our communities. I think all the engineering organizations need to really be leveraging their members, and it's not just about going to Washington, it's about advocating locally and being involved and being that voice of expertise to talk about these issues—whether it be investment in infrastructure, whether it be investment in STEM education—because you hear all this about "Oh, we're going to create jobs," and it's like "Ok, yes but to fill those jobs, we're going to need people with STEM expertise because that's where the jobs are going to be created." So I think it's the role of every engineer, every scientist to be out there talking about why this is important.

Bringing Engineering Back

A lot of the work we do is outreach to girls and their parents, where we really do bring in our members who come from all walks of engineering life, and they're able to talk with the girls as they're doing hands on activities and get them excited about this idea of innovation and being creative and creative solutions to challenges, things like the National Academy's Grand Challenges. So what we see appeal to women is helping

others and really making a difference, and so I think by being able to show them all these different areas of engineering and how they can have an impact, we can move the needle. Certainly the collegiate data shows us that fields like biomedical, environmental, chemical, civil do really appeal to women, and that's where you see some of the better numbers in terms of degree production. I don't know that everybody is going to want to go into a manufacturing environment, but I think that by showing them a number of different ways that they can contribute through an engineering profession, we'll move the needle.

Society of Women Engineers: Aspire, Advance, Achieve

I think our tag line really spells out what we do as an organization, which is "aspire, advance, achieve." So the "aspire" piece is really showcasing engineering as a highly desirable career aspiration for women: doing work with girls, their parents and adult influencers like teachers, to really show them what does it mean to be an engineer, help build their confidence with things like hands-on engineering activities and hopefully set them down a path to considering it as a career choice. Then the "advance" is really the work we do helping serve our members: help them succeed and advance in their careers. So really our members are women from those just starting out in engineering school, through women in their careers, to retirement. Helping provide professional development, networking—all the things that they're going to need in addition to their technical expertise to be successful. And then the last piece would be the "achieve," which is to really focus on the importance of gender diversity in the profession. We have a very robust awards program for women in the profession; we do a lot of work in Washington around the importance of gender diversity in the profession, just really highlighting the accomplishments of women in the profession through all of our publications. We're about 40,000 members, primarily women, and again that really ranges from the point a woman enters an engineering program in college through retirement. We have a number of members that, once they retire, still stay involved to give back and advocate.

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