

## NCSEA 2023 Young Member Summit Scholarship

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What is your opinion about the public's perception of structural engineers? Provide suggestions for how structural engineers might increase recognition and general public awareness of the profession.

I was introduced to engineering at a young age by my uncle, a civil engineering professor. One of my earliest memories was making a geodesic dome out of gumdrops and toothpicks and learning that a triangle is the strongest shape. I enjoyed and excelled in science and math classes all throughout school and I later went on to take an engineering and architecture elective in high school, which further increased my interest in pursuing a career in the construction industry. And yet, through all of these experiences, I never remember hearing what a structural engineer was.

In talking to colleagues, I have heard many stories similar to mine. Like them, I was interested in working specifically with structures, so I went into college pursuing architecture alongside engineering. I learned through these experiences that my brain worked more like an engineer's than an architect's. Although I generally knew that civil engineering was the field I was most interested in, I rarely, if ever, heard more specifically about structural engineering.

As a sophomore in college, I contacted family friends who worked in the construction industry and gave my resume to anyone who would take it, looking for an internship. I still didn't completely know what I wanted to do for a career, so I was open to almost any opportunity in architecture or engineering. I found myself being asked to interview for an internship at PES Structural Engineers, the company that I still work for today. This ended up being a pivotal time for me, where I came in at the beginning of the summer not knowing what a structural engineer did, and left feeling much more confident that this was the career path that I wanted to follow.

I was able to see that structural engineering was the perfect way for me to combine my love for architecture and seeing buildings come to life, while still getting to use the more analytical and math-loving side of my brain. This helped me focus my studies for the rest of my time in college and directed me towards what type of company I would like to work for afterwards. I can now reflect that had I not happened upon this internship opportunity, I might not have learned that structural engineering was exactly what I was looking for until much later.

I believe that this is one of the main issues that can be addressed in order to change the public's perception of structural engineers. The issue that I experienced was simply not hearing what structural engineering was, even as I was surrounded by engineering more than most. There has been a recent push in getting STEM into

schools to introduce children to these fields at a younger age, but rarely is a structural engineer mentioned. If kids grow up being more aware of all the opportunities that are out there, they will grow up to be adults who more readily recognize the important role of structural engineers in society.

I am passionate about bringing structural engineering concepts to kids in my area, and helping them become aware of what a structural engineer does. I have volunteered at ACEC Georgia's Introduce a Girl to Engineering Day every year since graduating college, including being an organizer for my company's sponsor booth and activity for the last two years. I enjoy taking on this leadership role, as it is extremely rewarding to see kids learn and get excited about the profession that I have grown to love.

At these events, we bring material samples to show what goes into the construction of a building, as well as posters highlighting the role of a structural engineer alongside the other professionals on the design team. Each year we have a hands-on activity where the girls can, for example, try to make a structure out of clay and popsicle sticks that can withstand an earthquake, or use a piece of paper to make a column that can support a stack of books. Through these activities, we are able to open up the conversation about what types of challenges a structural engineer deals with, and how important they are to keeping all of us safe.

The conversations that I've had at events like Introduce a Girl to Engineering Day, both with the children and parents attending, have been a great way for me to pass on the knowledge that I wish that I had growing up. I feel that the only way to cultivate an interest and direction towards a certain career is to know what options are out there. I was eventually able to find my way towards structural engineering through luck and finding ways to tie together my interests, but I hope that in the future every child will have an understanding of structural engineering more specifically and, therefore, respect and recognize the importance of the field to the success of society.

Continuing to hold events like these that give space for structural engineers to showcase what they do and spread knowledge of the profession is extremely important. I believe that the public's perception of structural engineers is largely lacking in knowledge of what a structural engineer does and how crucial they are to protecting the safety and wellbeing of everyone. As structural engineers, we need to continue to participate in these events and showcase what we do to those who might be unaware, starting with children who will grow up to have a greater appreciation for the profession. Not only will this open peoples' minds to structural engineering as a viable career, but it will increase the overall recognition and awareness that the public has towards structural engineers.