

PROFESSIONAL ISSUES

issues affecting the structural
engineering profession

Rainbows Only Come After Rain

*The Importance of a
Young Members Group*

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Forming a Young Members Group (YMG) has altered my professional vision and influenced the lives of many others. In 2010, shortly after attaining my master's degree, I joined the Structural Engineers Association of Massachusetts (SEAMASS) and have been actively involved ever since. However, I soon noticed that there were hardly any young registered members or event attendees. Observing other young professionals in my network, I noticed that young engineers lacked a cohesive network of resources which we could use to seek answers to entry level questions (which some find difficult to ask at work), and have our opinions and concerns addressed through an established avenue.

In 2012, Sofia Zamora and I took the initiative to establish a Young Members Group of SEAMASS, with the goal of supporting young engineers in the Massachusetts structural engineering community, particularly in aiding their transitions from school to professional life.

Establishing a new group was quite a challenge, but not nearly as difficult as justifying the importance of the YMG to the local structural engineering

community. We found that this initial position was somewhat common among other NCSEA state affiliates. I am sure that there remain some who believe that a YMG cannot contribute as much to the profession as senior members, and it is my goal to change their minds.

As the SEAMASS YMG continued to thrive, members of the SEAMASS Board applauded our efforts and achievements, and began to embrace the germination of a reciprocal relationship. Upon receiving proposals from the YMG, SEAMASS has been investing in us, allowing us to explore different group activities, host creative topics that are geared toward young professionals, and build a vibrant community for the future. SEAMASS YMG creates avenues for young members to grow in areas outside of the customary technical presentation setting.

We want to further prepare young engineers for their careers in many aspects in addition to technical knowledge. SEAMASS YMG provides hands-on learning experiences, such as touring facility plants and construction sites, training programs and study groups, community outreach opportunities, as well as soft-skills building. Many of the young engineers that come to YMG events to network and learn in a more casual environment ultimately become a part of the team, further benefiting the member organization (MO). Not only does the member organization benefit from the increased number of members and a great contribution of novel ideas from the YMG, but also senior board members of the MO

receive new perspectives and creative concepts that inspire them to reevaluate the longstanding status quo and organizational approach.

Society is often resistant to change, and some organizations may be hesitant to implement new plans – in this case, a new committee group. In the start-up stage, there are hurdles that must be overcome by both the established senior members and the joining young members. Convincing others to believe in us and to fight this uphill battle can be difficult. That said, we, both senior and junior members, must be resilient and perseverant if we wish to build something truly significant.

A Reciprocal Relationship (Mentorship)

I believe that a reciprocal relationship is just one of many advantages created from establishing and maintaining a YMG. In the structural engineering context, reciprocal relationships allow young engineers to apprise senior engineers of the latest industry trends and new methods, while senior engineers continue to foster the professional development of young engineers in the traditional mentorship mold. In order to properly implement reciprocal mentorship, we must first ask ourselves, “How is the industry different today from what it was in the past?”

The college curriculum for the LRFD generation varies considerably from the curriculum of the ASD generation 20 years ago, when those who are now the experienced, senior engineers received their educations. Many experienced engineers adopted the rule-of-thumb methods that they learned from their own mentors and practice with formulas from old codes, shortening design times while staying adequately conservative. However, methods that were once commonly used are no longer efficient today, or applicable to modern structural shapes and the constantly changing codes.

Reciprocal mentoring would help to bridge the knowledge gap between generations of engineers, allowing both parties to increase their knowledge base. Younger engineers could brief the experienced engineers on the latest design technology options and industry trends, while simultaneously learning to ply their trade from the more experienced minds.

This relationship would lead senior engineers to consider more factors (such as unforeseen software constraints and limited resources) when they estimate project budgets and required hours. Consequently, accurate projections would increase the efficiency and competitiveness of their work. In return, young members will receive lessons learned from individual senior engineers and collective structural knowledge within the MO.

Planting the Seeds

The focus of nurturing a young community, which is oftentimes undervalued or overlooked, is the key to a better future. It is very important for experienced engineers to be aware of the frustration that exists in the industry today – acknowledging the dynamic role of today's young engineers and the importance of their roles in the structural community. Planting the YMG seed is one solution to sustain the growth of engineers, to increase competency and competitiveness in the industry, to develop leadership and management skills early, and to learn what it takes to create and complete a job.

Young members should no longer be thought of as just individuals taking up seats in the structural community; rather, they should be thought of as individuals with extensive, growing networks who exchange information and cultivate one another to be future leaders. At the 2014 NCSEA conference held in New Orleans, the regular attendees must have noticed an obvious change in the NCSEA community. There were 10 times more young professionals attending the conference compared to just two short years ago. In addition, the NCSEA Young Members Group Support Committee was in charge of one of this year's conference sessions, deliberating challenges that the industry is facing, recommending strategies to mitigate them, and working together to solve problems.

Great things take time and energy to bring to fruition. With support and guidance from the community, this LRFD generation will soon be capable of assessing, creating, and forecasting new solutions and opportunities for development of a greater community, and to further improve the practice and the standard of this profession. By planting the seeds now to germinate tomorrow's success, we ask you to help us grow the YMG network, so that those who are following in your footsteps can receive some of the advantages that you can only wish you had.

The successful launch of the Young Members Group of SEAMASS was due in large part to the resources and guidance offered by the NCSEA Young Members Group Start-Up (Resource) Guide. The 2014 version of the NCSEA YMG Resource Guide, compiled by Heather Anesta (heather.anesta@stantec.com) and Ellen Kuo (ekuo@smma.com), can be found at www.ncsea.com/resources/documents. We look forward to hearing your feedback and suggestions about the Young Members Group! ■

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