

# A Continuing Discussion on Structural Engineering Engagement and Equity

By John Dal Pino, S.E.

STRUCTURE published a series of three articles in 2017 written by the Structural Engineering Engagement and Equity (SE3) Committee of the Structural Engineers Association of Northern California (SEAONC). These articles presented the results of a 2016 nationwide survey of engineers on the current conditions in the workplace about both engagement (broadly defined as satisfaction) and equity (broadly defined as fairness) and offered ideas for improved career development, retention, pay and benefits, access to opportunities, and work-life-balance. STRUCTURE has also published articles on the importance of mentoring and how to do it effectively (see *Anderson, April 2018*, and *Grogan and Anesta, May 2014*).

The survey showed that many engineers expressed displeasure in several facets of the workplace environment, which means there are real issues to discuss and address. Avoidance and dismissal is not a good plan of action. Therefore, I support the efforts of SE3 (now an NCSEA committee with many MOs starting their own committees) and believe that it is essential that we all work toward creating a more rewarding and fulfilling workplace for engineers, one that is complementary to an equally rewarding and fulfilling personal life. At the same time, firms must be structured to succeed.

I am both an engineer and a current project manager (and a former large firm shareholder) and feel a bit conflicted trying to fulfill myself and my engineers, as well as my firm. Some of the best practices proposed by the SE3 2016 Report are win-win no-brainers (see [www.se3project.org/best-practices.html](http://www.se3project.org/best-practices.html)), so most firms should seriously consider implementing them. However, I see the other side of the coin, too; other changes require more debate and discussion. I enjoy the profession, the lifestyle I have been able to achieve, and the workplace flexibility that I have enjoyed.

So, let's work to make the profession better but, at the outset, we should acknowledge that we have it pretty good compared to other jobs where people punch a clock, open the store in the morning, or start teaching school every morning at 8:00 am sharp.



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At the heart of the matter is a clash between two competing interests: those of the individual and those of the firm. Firms that navigate this clash directly, equitably, and reach some level of compromise will come out on top by retaining their staff. The firms that do not will go by the wayside.

From the employee perspective, life is getting more complicated and demanding (longer and more stressful commutes, work travel, two-working-parent households, helping aging parents, etc.). Engineers are human beings and want to enjoy a rich personal life outside the office. Based on the 2016 SE3 survey data, engineers also expect equitable advancement, reasonable workplace expectations about effort and hours, flexible work hours and schedules, and the ability to work from home or remotely to suit their situation.

Based on the 2016 SE3 Survey data, more than 50% of respondents reported having thought about leaving the profession at some point. Men and women alike noted that they desired higher pay, less over-time, flexible benefits, flexible daily or weekly hours, the ability

to work remotely, and maternity/paternity leave. Women rated “better work-life balance” most highly, while men rated “higher pay” as the top reason.

From a firm perspective, the industry has become more competitive than ever. Large firms are expanding; smaller firms are leveraging technology to work outside their normal geographic boundaries. Fees have stayed relatively constant, while buildings have become larger, more complex, and more expensive. Technology has made work easier, but, with that, client expectations for speed of design and construction have risen. Paper drawings have been replaced with the new-normal of complicated REVIT/BIM models, provided of course for no additional cost. While the industry is doing well today and

profits are strong (or should be), money is as tight as ever, averaged over an entire business cycle. Recruiting and retaining talent is critical. It can be challenging to get it all to function smoothly. The bottom line is that financial pressures on the firm can make it difficult to accommodate the wishes of the staff.

Firms that embrace change will be successful in terms of recruiting and retaining talent, which after all is the core of any engineering business, all while addressing client needs efficiently and economically.

## Gender and Pay Equity

There is no place in today's workplace for discrimination or bias in determining pay. This is not a uniquely American issue but, as a country, we seem to be having the conversation,

addressing the issue, and working to bring this relic to an end. Our country is a great beneficiary of this trend, and we are all better off.

However, for engineering firms, we must recognize that an individual's level of pay will be based on their overall value to the firm, considering several factors, many of them subjective. Firms that set clear benchmarks and expectations can minimize implicit bias and will have better relationships with employees and be perceived as being fair. In evaluating pay equity, it is important to remember that, early in an engineer's career, technical skills are most important. As an engineer's career progresses, client management, networking skills, business development ability, and project management skills are most sought after and rewarded. These skills are not taught in the university yet must be acquired and honed. Although smart firms provide training equally for all interested, ultimately, as professionals, it is up to the individual to develop the necessary skills and earn the pay they desire.

## Salary and Benefits

Pay was one of the top factors for engineers that reported considering leaving the profession. Honestly, I think engineers do pretty well financially compared to other professions requiring a college degree. The hard truth is overall salary levels and benefits are a function of marketplace competition between firms (design fees), the value of services provided to clients (firms in niche markets or with unique abilities do better), and the supply and demand of engineers. Every employee, regardless of industry, would like to be paid more and get regular salary increases. However, engineering firms can only pay out what they consistently generate, after accounting for non-salary operating costs, needed investments, and a reasonable profit. Firm owners can sometimes be their own worst enemies in their relationships with employees by competing for jobs based on lowest fee or by over-valuing their own expected return, leaving less for salaries and benefits. If you are at one of those firms, and if salary and benefits are really important, advocating for what you are worth is the first step, but changing firms is also an option. Some firms do better than others because of superior management and services offered, and employees benefit. Seek them out.

## Work-Life Balance

Today's norm for hourly industrial employees is 40 hours per work week with paid overtime, supported by a host of regulatory labor protections. Although engineering is a service sector field, the expectation of engineers is

much the same. However, engineering is a demanding profession, and getting the work done in 40 hours is, more often than not, impossible. From my personal experience, most people are willing to put in a little extra to meet deadlines. However, over an extended period, more than about 10% overtime is not sustainable and leads to stress and work-life imbalance. Amazingly, some employers take advantage of this dedication (knowingly or without much thought). However, eventually, people burn out and may quit. Unless the business model is to only hire entry-level staff and replace them as needed, the loss of skilled and trained staff due to overwork or rigidity in schedule can have devastating impacts on the firm's bottom line.

My approach to staff has always been to give staff the responsibility to get the job done with flexibility as to how and when they do their work. This allows life to be attended to consistent with project demands. I monitor booked overtime since too much is not good. If an engineer needs to take a few hours off to take care of a personal matter, I let them. My advice is that firms be flexible and pay attention. The bond between firm and employee will be strengthened, and the engineer will likely more than repay you.

## Working Remotely

Working remotely is easier than ever with technology and secure connectivity. Engineers greatly appreciate this flexibility. The ability to work remotely is likely to be a net positive and also contributes to a healthy work-life balance. Additionally, it can be a way to employ talented staff who are not in the geographic locale of the office.

As highlighted in the 2016 SE3 Survey, working remotely is also a two-edged sword. Some engineers reported being critical of co-workers that utilize flexibility benefits like working remotely. Engineers who desire to work remotely must recognize that it is more valuable to the firm for the engineer to be in the office fostering better communications, stronger personal relationships, and higher overall team productivity. As a result, the engineer who works remotely on a regular basis may suffer some consequences in terms of salary and career advancement. This trade-off may be positive for both parties, but each party must understand the issues and enter into the set-up with eyes wide open.

## Mentoring

In the past, on the job training (a form of mentoring) was achieved by observing senior staff or during casual conversations

with coworkers. Most owners and managers developed their soft skills and habits in the workplace by observing the owners and managers they worked with, and so on. Today, mentoring has become more formal and organized and involves seeking out mentors either inside or outside the firm. The new model should yield better results.

Firms that lack formal mentoring programs should set them up to satisfy the need. Avoiding the issue is not a plan. Programs will expose engineers to sought-after project management skills. Mentoring should help the mentee in terms of career advancement and job satisfaction so, logically, the engineer should be happier and be more likely to stay with, and improve, the firm. If you find that engineers are not too interested in your firm's owners and managers as mentors, that should tell you something!

## The Pursuit of Happiness

Logic would suggest that engineers work better, are more dedicated, and are more likely to stay when they are happy and like their work experience. Be a good listener and observer; coach engineers and empower them to be successful. Show your appreciation for a job well done. And remember to have some fun along the way.

### Summary Points

- 1) Treat everyone equally, fairly, and with respect. Compensate them according to their value and merit using clearly communicated and measurable benchmarks to ensure fairness and eliminate misunderstandings.
- 2) Structure and conduct the firm's business to maximize profits and available funds for salary and benefits.
- 3) Create a workplace that balances work and life. Good staff is naturally dedicated, but owners and managers need to be realistic about the workload. Be flexible.
- 4) Make working remotely simple and easy. Consider using technology to attract and retain staff outside your geographic area.
- 5) Set up a mentoring program and be a good mentor if asked.
- 6) Work hard, but take time to thank people and show genuine appreciation. ■



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