

From Where I Sit # 2

Three Rs for Women in STEM: Recruitment, Retention, Resilience

By Susan M. Fitzpatrick

March 2012 launched one of the oddest springs I have experienced in the two decades I've lived in Missouri. Midwest springs are always a bit tumultuous – and there are times when all four seasons crowd into a single day – but this year is one for the record books. I left for Patagonia on March 10th with just the barest hints of early spring on display. I returned March 24th to find the trees fully leafed and many of the classic spring blooms come and gone. The first sight of our garden was a surreal experience made even more so because I'd been immersed in the early autumn of the southern hemisphere. So far, the weather roller coaster just keeps rolling.

I live close to nature so the rapid changes and juxtaposition of seasons have me unsettled. One sign of my psychic turbulence is that I have written and rejected multiple versions of this column over the past three weeks. I am still sitting here with the deadline looming as one thing or another momentarily grabs my attention. Thoughts and ideas seem to come and go with the ephemeral energy of hailstones.

For awhile, I was completely distracted by the drama ensuing over whether or not Virginia Rometty, the first woman CEO of IBM, would or would not attend the Masters and whether or not the host golf course Augusta National would offer her a membership as it has traditionally for the head of IBM. How tiring and needlessly distracting it must have been for a high-powered CEO with more than enough to fill her day. Realizing the dust-up over the tournament would be old news by the time this issue of the magazine was published it was not worth hanging a column on. Still, I think it is worth mentioning if only because I find it emblematic of the issues increasingly front and center for women in STEM (science, technology, engineering, mathematics, academic medicine). The fact that there could still be a pro and con debate (consumed the blogosphere) as to whether a female CEO should expect the privileges typically offered to a man occupying her position speaks volumes about the societal discomfort we still have with powerful women. I am willing to concede to the glibberati the point that a private club is free to define its membership. The issue behind the issue is why a golf club (or any organization) would feel the need to have a policy excluding 50% of the population – and what such policies tells us about the way some men feel about women. It creates that odd tension – you don't want to make too much of it, but why is OK for the boys to say “we just don't want the girls around?” Public debates around this issue rarely make women feel more secure. Every time a successful powerful woman has to endure comments on her appearance, or her activities, or yes, even her attendance at a golf tournament it is an outward sign of the extra energy women have to give to seemingly trivial pursuits just because they are women.

I am pleased that from its founding, AWIS deliberately used “for” and not “of” in its name and has welcomed, and has, men in its member-



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ship. A “women need not apply” policy should feel so anachronistic in 2012 as to be laughable. However, from where I sit, it didn't seem that anybody was laughing. As the Augusta National and other topics inspired by the headlines swirled in my head a theme for this issue's column finally emerged. What is, can and should AWIS do to support women pursuing careers in STEM so they can stay the course, stay sane, and stay healthy considering the typical wear and tear women can expect careers to exact over time? Back in January, at a Washington University Medical School (WUMS) reception for women I was moved by the remarks made by Dr. Victoria Fraser, the interim chair of the Department of Medicine (and the first woman to head this large and powerful department at WUMS). In frank and human terms Vicky, as she is universally known at WUMS, talked about the demands, tradeoffs, and rewards of pursuing a career in academic medicine. She honestly revealed her own reluctance to take the helm of the Department knowing the impact the job would have on her family and personal life. But then Vicky made a compelling argument for why women have to find a way to get to “yes” and willingly step into leadership roles.

Her remarks caused me to reflect on my own experiences. I initially said no when the AWIS nomination committee called. I routinely say no to search firms calling about possible positions requiring a move. I often advise my women friends to “learn to say no and say it often.” Women often are willing to take on additional work without recognition and so learning when to say no is an important career strategy. However, when should women say yes? Why should women take on positions with added responsibilities and visibility and open ourselves up to all the wearying aspects of trying to do a difficult job while under the microscope? Vicky made a persuasive case as to why more women have to be willing to step out on to the career edges if we are ever to achieve sustainable institutional changes. Vicky believes there are ways to make it possible for more women to say yes. I was intrigued and made an appointment with her for a follow-up discussion. Our conversation in early February inspired this column on the 3 Rs.

The first 2 Rs seem straightforward. AWIS members know first-hand

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President's Remarks



that hiring women is necessary, but not sufficient; retaining women is essential for achieving gender-diverse workplaces across career ladders. So what's with the third R? How do women, and the institutions employing them, benefit from making resilience a desirable characteristic? Colloquially most of us think of resilience as the ability to bounce back from adversity. In systems, a simplified meaning is the ability to maintain or return to a stable state despite perturbations. The complex systems scientists of the Resilience Alliance (see http://www.resalliance.org/index.php/key_concepts) are interested in the resilience of socio-ecological systems and define it as

...the ability to absorb disturbances, to be changed and then to re-organise and still have the same identity (retain the same basic structure and ways of functioning). It includes the ability to learn from the disturbance. A resilient system is forgiving of external shocks. As resilience declines, the magnitude of a shock from which it cannot recover gets smaller and smaller. Resilience shifts attention from purely growth and efficiency to needed recovery and flexibility. Growth and efficiency alone can often lead ecological systems, businesses and societies into fragile rigidities, exposing them to turbulent transformation. Learning, recovery and flexibility open eyes to novelty and new worlds of opportunity.

There is little doubt in my mind that women working in the STEM disciplines need resilience. Negative reactions to a paper, presentation, proposal, or a project's outcome have to be absorbed in a way that does not diminish the ability to respond successfully to future perturbations. But what about work environments? An important idea in the Resilience Alliance definition is systems, such as the institutions employing women should also aim to be resilient (but not rigid!) so that they can change, adapt, and withstand perturbations. Resilient systems can absorb shocks, but they also allow for novel and adaptive change. Resilient work environments are able to adapt to flexible schedules, different leadership styles, and the introduction of new concepts (such as valuing and rewarding mentoring or collaboration) without becoming brittle.

In my conversation with Vicky she went a step beyond the ideas discussed above in an interesting way. Vicky thinks institutions should actively design environments to nurture and support resilience.

What might this look like? One example might be for medical schools interested in recruiting women into leadership positions, such as division heads or department chairs, to give women an opportunity to have experience in those roles (Shadowing? Part time? Interim appointments?) and gain a fuller sense of the jobs demands and different models for meeting those demands. Having experience and a set of strategies prior to accepting new roles can help build resilience for the inevitable times when someone is going to be unhappy with your leadership.

Are you resilient? If so, what nurtures and supports your resilience? Is your work environment resilient and adaptive or rigid and brittle? What ideas do you have for how work environments might explore novel, innovative approaches for supporting resilience across the career spectrum? A discussion on this topic has been started on the AWIS LinkedIn group at <http://linkd.in/awiscience>. I invite you to share your thoughts and experiences and help AWIS think strategically about supporting resilient individuals and creating resilient work environments. We're waiting to hear from you! ■



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Faye Farmer has been a member of AWIS since 2004. As a graduate student she initially was an active member in the Central Arizona Chapter. She is the immediate past Editor-In-Chief of AWIS Magazine. Now, as Associate Director of the Research Strategy Group at Arizona State University, she supports large scale and otherwise strategic scientific proposal production efforts for the university. She believes strongly that AWIS provides a tangible, constructive, and critical advocacy network for women in science.



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Monica Young received her Ph.D. in Astronomy from Boston University and continued on to a postdoc at The Pennsylvania State University before changing course to work as a web editor for Sky & Telescope magazine. She has been a member of AWIS since January 2009 and enjoys writing feature articles for the AWIS magazine.