Seven years ago I transitioned to a new role as Dean of the Natural Sciences Division after 20 years of teaching in a four-person Geology department. About 3 years into this new gig I read the paper “How Geoscientists Think and Learn” (Kastens et. al, EOS Trans. AGU, 90(31), 265) which caused me to reflect on why I was actually enjoying what I do and was having some success at it. Qualities of geoscientists such as having a broad perspective of time, understanding and appreciating the workings of complex dynamic systems, a sense of space, the adaptability and flexibility that comes from field work, and the sense of being part of a community of practice all have served me well in this new role. Currently I have the privilege of working with about 50 full-time faculty, 75 adjunct faculty, 10 classified personnel and over 6,000 students each term in a variety of disciplines from Biotechnology and Kinesiology to Geology and Physics.

The goal of my work today has shifted greatly from my role as a faculty. In one sense, I serve students by serving my faculty, helping them to be their best possible selves in their daily work. Largely this includes making it safe for them to try new teaching approaches, helping them to update and align their curriculum, getting them what they need to be great teachers, and generally trying to move obstacles out of their way. I find myself trying to say, as much as possible, “Here is how we get to yes”.

As dean, I also see on a daily basis the broader challenges our geoscience students, and all STEM students, face beyond simply successfully completing their courses. Approximately 65% of our entering students test into developmental math and English. Therefore at our college, it is often several semesters into their college career before they really start being a STEM major. For many first generation college students, poor students and underrepresented minority students, there are too many exit points along their pathway to success. In one longitudinal study at our institution, only 35% of our general student population had either received a degree, a certificate or transferred to university after 6 years. For Latino students who began in either developmental math or English, that number drops to 29%.

We are certainly proud of the fact that every year we transfer geoscience students to places like Cal Tech, UCLA, Davis and Berkeley. Yet for many students who fall in love with their first geology class, without our support through their challenging course work in math, physics and chemistry (which they might not love quite as much as geology) they are unlikely to make it to the finish line.

The good news is that, in the geosciences, our field work naturally lends itself to the formation of learning communities and provides great opportunities for problem based learning—two important strategies in helping to engage underrepresented students in STEM. The better news is that we are also very interdisciplinary. We can bring relevant, real world problems into all the STEM fields that can engage students and give them a sense of purpose towards completion of a Geoscience degree.