

Buswell, N. T. (2017). Narrative 11: Molly Sanders. In *Swimming upstream: Pathways of new engineering faculty at non-R1 institutions* (Doctoral dissertation). Pages 201 – 209.

Narrative 11: Molly Sanders

Molly Sanders is an assistant professor at a Doctoral University: Higher Research Activity. At the time of this interview, she had been in her position for about 6 months, however, she had been at her Current Institution for about three years. In this narrative, she describes her graduate school experience and why she was drawn to teaching. She also talks about how the students are what drive her to keep going and innovate her teaching.

How I got here

I had an opportunity to teach - I was an undergraduate TA in college. I actually did my undergrad here at [Current Institution, a Doctoral University: Higher Research Activity] as well, and realized that I really liked teaching. At first, I wasn't thinking of going to graduate school, but then I heard a talk from the person who eventually became my advisor.

The research that he was doing was very related [to my interests], and so I decided, "Well, I'll go to grad school." I took about a year off and then I applied for grad school and went to [PhD University, a Doctoral University: Highest Research Activity] and ended up working with him as my advisor, with the intent that once I finished, I would get a faculty position so that I could teach.

Graduate school - I came because they guaranteed funding. I think if they hadn't done that I might not have gone because by that point I'd gotten a job in industry and I liked it, so it wasn't in engineering, but I liked what I was doing and there was room to advance, so, if [PhD University] hadn't guaranteed me funding I probably would have stayed where I was.

I came to [PhD University] and that first semester, we didn't start with an advisor, so they give those who they believe have the academic and the English capabilities TA positions. I enjoyed TAing. Part of me wanted to TA again, but part of me also said, "But, research is partially why I'm here, so being able to get my degree - if I don't have the time to do research, then it's harder to get out, and get everything done that I need to get done." My university - I think partway when I was there in graduate school, they started offering a certification in teaching for engineering, and I had wanted to do that, and my advisor, who knew that I was interested in going into teaching down the road, said, "It's probably not the best use of your time.

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So, you really need to focus on the research and do a good job there, because that's what people are looking for when they interview you."

It was frustrating. He meant well and coming from where I am now, I understand. I think I was fairly angry. I was angry because I'm like, "Well, shouldn't you get training to teach?" And I have good colleagues - they both wrote their dissertations on education and looking at how graduate students are trained to be teachers, and I thought, "Why isn't training us to be teachers important if we're going to go into faculty positions? Because isn't that the point of going to university is to be a teacher?" And then finding out, well, actually a lot of the focus from administration and departments is on bringing in research funding, and so for a long time I was very frustrated by that.

I still am a little bit. The issue is partially culture. I think it's partially metrics. It's easier to measure productivity in terms of doing research as opposed to teaching, and also even though students complain about high tuition – I don't know how much of an impact it makes on the overall operating costs of the university, why research is so emphasized compared to teaching oftentimes. I think if I'd known as a student that this was the way this system worked, I probably would have been a bit up-in-arms. I knew faculty did research, but I didn't realize that the emphasis was so heavy on that.

[During graduate school, I] discovered that - I mean, research has its ups and downs, so you hate it and then you say, "Oh, no, I actually like it," and then you hate it again when things go wrong. I realized I do enjoy research, but I still wanted to focus on teaching. When I first finished my PhD, I ended up applying for positions everywhere. I just applied everywhere. Small schools that had teaching focus, large universities, so I applied to a couple tier one universities as well.

My advisor was working really hard to try and give me suggestions on places that I could apply. So, he knew I wanted to teach, so he was suggesting some more teaching-focused universities for me to apply to and try to make contacts there. He was very supportive. I never had any feeling that people were looking down on me forever wanting to do that.

I interviewed a lot of places. I interviewed at [a Doctoral University: Highest Research Activity], which is tier one, and I interviewed at a number of smaller, teaching-focused colleges,

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and what I discovered was that even the smaller schools were expecting you to have a research program. So even the schools where teaching was a focus.

I didn't go up and get a post-doc. I ended up being a research faculty at my [PhD] institution because it was the type of research that I was still interested in pursuing. We decided to have [my husband] look for positions first, and then we would see what sort of options I had at any places that he got interviews, and so he interviewed three locations. He actually didn't get offers, and one of them was [Current Institution]. He didn't get offers at any of them, but then [Current Institution] called back part way into the semester and said, "We're having someone retire mid-way, would you like a job?" He said, "All right!" And it was my undergraduate institution, so I loved it here and have really fond memories and my research is a good fit for some of the other work that's being done, so I thought, "Well, there might be opportunities for me as well," Which isn't true in some of the other places that he interviewed, so that's why we decided to come.

I became a research faculty. We came here, and I was excited because they had [my field of] engineering, which not every university does, so I was like, "Well, there are great options for me." There are people doing research in related fields to what my research is, so [I was] hoping there would be room. Took a couple years to actually get a tenure track position, which I started this fall.

At [Current Institution], because I was already here, the interview process was different. I came in, gave a talk, talked to some of the faculty, but I didn't do most of the other you generally would do, like talking to the deans and things like that.

My preparations for teaching

[During my PhD] I TAed for a junior-level class and what we did at our university was we actually taught recitation, so it wasn't a grading position, which at some universities it is. I would have them - I think one day a week, and I'd prepare example problems to go over with them that were related to the topics. I sat in on their class so that I knew what they were going over and then we could address it more in the recitation, and so we went over example problems. They'd come to office hours and work through homework, and that was generally what it is. I did grade projects, written projects.

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I was an undergrad TA for botany. I also taught English conversation classes, so I coordinated a program and also taught small groups of people. I learned how to teach phonetics to international visiting scholar's spouses, graduate students, and our class was free, so people would come and practice speaking. That was my teaching fix when I couldn't teach in graduate school anymore, was I'd teach English.

Going back [to graduate school] I would probably have done that [teaching] certification just because I think even though it may not have been useful for landing a position, I think doing the best by the students, it would still have been a useful experience, because you have to take some education classes. Which, now that I'm here [at Current Institution as an assistant professor], I'm never going to have a chance to do that, so my best chance would have been to do it in graduate school and just trying to work it in in the midst of my research.

And pretty much, the TA's, we [didn't] get any training. We're just thrown in and said, "Here. Do your best. Do your best to teach this recitation." If you're lucky, you'll get a professor who's willing and able to mentor you and how best to do that, but most don't, so you just wing it. Figure out what to do. You get evaluated by the students, but the faculty don't evaluate you at all really, so I think having faculty evaluate graduate student teaching would have been a really useful thing - to get feedback and say, "These are things you could improve. These are things that you could change," Just to see how the class is going.

I think if I'd asked for help they probably would have given me feedback and advice, but I felt fairly comfortable doing it myself and they were comfortable just letting me do what I wanted to do. And I think that's true of most of the faculty where I was coming from.

It was a slow process [to learn what professors do]. You come in [as an undergraduate] and you think, "Professors teach. That's what they do," And then slowly you learn by your classmates who start doing research projects with faculty, "Oh, they do research, too." But you don't really realize what that means, and then in graduate school, I realized, "Oh. Well, they do teaching and research, but chances are the research might have been more of a focus for them," Because you learn from your own advisor what their life is like and what types of emphasis they place on you for your own work, and so I think it was a gradual process, and then when you go and start interviewing [for faculty positions] you realize what universities are looking for in candidates.

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I wouldn't say that I learned overnight what life of a faculty member is, but I think it was a slow process of going through this until the point where I am now faculty and I have a pretty good understanding of what most faculty do. But no one ever sat you down and said, "Well, faculty do this and this and this." You just slowly pick it up from your environment and your interactions with other people.

My early days as a professor and what I am doing now

If you go to a very supportive department they'll give you a reduced teaching load. That's what I have. I'm actually not teaching this semester, and I'm only teaching one class in the spring. And so normally our teaching load is two-one, so we teach two courses one semester and one course the other semester, but for the first two years we have a reduced load, and that's so we can focus on getting our research set up, which is very important. I mean, if you want to be successful in researching, you need that time. And, I mean, for better or worse, teaching does take a lot of time and a lot of preparation, a lot of investment. So, I'm torn. There's a torn feeling. I want to be a great teacher, but that takes time. I want to be a great researcher, but that takes time. You've got to find a balance – learning how to do that is part of the challenge.

I taught a graduate course last fall for the department part time, so I taught a grad course and I coordinated the intro course for the freshmen. That was my first time actually teaching. In grad school I TAed two courses my first year, but after that I was fully funded on research, so I didn't TA after that. That's pretty much where I am now. This semester I'm not teaching. I'll be teaching again in the spring.

I feel as though [Current Institution] is still heavily invested in teaching. Not that [PhD University] is not, but – How do you compare? It's a cultural difference. It feels like [Current Institution] is striving to go that direction. I feel like there's a lot of more emphasis – recently, at least, on getting research funding in than there may have been in the past. Not that people at [PhD University] didn't care about teaching, but sort of a mindset that they enjoy teaching, but it also is what enables them to do their research as well.

I feel like here, there's a little bit more effort on integrating the two, so integrating what your research is with your teaching among the faculty so that they're not necessarily disparate things. Seeing them as combined, in a sense, and not sacrificing your teaching for the research.

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At least not entirely. The main difference, I'd say, is that [Current Institution] feels like it's playing catch-up. They're trying to get to where [PhD University] is, and so the culture is changing a bit, and I sense some unhappiness, a little bit, among some of the older faculty. Because they want the focus to still be on teaching, and this shift to having most of the metrics for evaluation of our performance being mostly weighted toward research is frustrating for them, because they can see that that could lead to negative impacts on the students.

I think I do have a little bit of a gift for teaching, and I enjoy it. And I think that when your teacher enjoys teaching and you can tell that they enjoy the subject and that they enjoy helping you learn. I think that that can make a very big difference with the students. I love the students. I love seeing them go from not understanding to really getting excited about the subject and taking them from the place where they have no idea what you're talking about to really being able to solve the problems they need to solve, to understand, conceptually, what's happening, to be able to apply what they're learning in new situations. So, that's why I became a teacher. That's why I'm still here. Not every student likes you. But you stay here for the ones that you're able to help learn.

[Current Institution] has a [teaching center] and they provide support for instructors at the university and, so they provide different opportunities to go to seminars and sometimes they bring in speakers and they have things where you go and have lunch and learn about topics and talk about them with other faculty members, and so I'm participating in some of those. Every so often I'll find a research paper related to engineering education that I'll save. So, I have a bunch of papers saved and I just don't have time to read them. That's pretty much about it for both research and for teaching, and it's just, I'm in the same boat, you know? I don't have time to read everything, so I save papers with the hope that I eventually will read them.

I think my struggle now is that, now that I'm faculty and now that I have [graduate] students, I have students come to me and [I] say, "Well, what do you want to do when you're done?" And they're like, "I want to teach!" And part of me is like, how do I respond to them? How do I encourage them and at the same time say, but the reality of the situation is that research is ultimately going to be the focus most places that you go? I want to give you the opportunities that - If you really want to teach, I want to help provide you with opportunities to do so, so that you can learn and grow in that, take advantage of the opportunities provided at the university.

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Learn in that area and I'll support you in that, but at the same time, research is really what's going to get you your job at the end of the day, so trying to be encouraging at the same time realistic is where I'm working right now with my [graduate] students.

What tenure looks like here

It was roughly 40-40-20, so 40% research, 40% teaching, 20% service. I don't think I have the list of what their expectations are for teaching. That includes teaching evaluations. I don't believe our department actually requires any observation. My husband's department does teaching evaluations by peer evaluations by other faculty members, but I don't believe ours does. I'm actually a little hazy on the teaching requirements. Mostly because, well, I'm a little more confident that I can meet them without keeping up on what they are, so I'm not that keyed in on the actual requirements.

The research is evaluated based on grants that you've applied for. Funding that you've brought in. Not number of grants, but actual dollar amount. I believe graduate students advised is in there as well. Publications. Publishing papers. That's also included in research evaluation. The sense is that I need to at least have a grant funded where I'm sole PI. But I think it's very dependent on the person. That's the sense that I get here, is that there's not a set criteria.

Service is a slew of things. It's serving on committees within the department. I'm currently an advisor for one of the student groups. That's included in service. Nominating people for awards is apparently included in service as well, writing letters of recommendation, things like that. Getting outside lecturers to the community I believe would be included in that as well. I think it's flexible and it really depends on what you report.

There's the statement that you can't be a terrible teacher. You have to be at least a decent teacher, but you can't be a terrible researcher. You can be an okay teacher and a great researcher and get tenure. You can be a great teacher and a terrible researcher, and you won't get tenure. The idea in that statement in itself tells you where the university is placing its focus. And I've gotten that from multiple people, and it's the impression I got at [PhD University] and it's pretty much the same thing I'm getting here. People say that reluctantly, as though this is the way it is, we can't do anything about it to change it. You just have to deal with it. So, be a decent teacher,

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help your students learn as much as you can, but make sure that you do sufficient research and get enough funding to get tenure.

They just need to show that you care enough that - And the students are actually learning something, so if after multiple years we do evaluations for different subjects in the following year. If your students are showing that they're understanding the subject material, and you're getting decent evaluations, I think that you'd probably do fine. For better or worse. So, do your best. They say the first two times you teach something it can be a little rough. The first time is the worst. The second time you're still working out kinks, and then the third time you should be good.

I feel that the university is designed to train people to give students an education. And, I mean, research is important, but the view from the world is not that universities are places that churn out great research and advanced knowledge. I mean, maybe that is to a lot of people, but most people think, "a university is where you go to get an education." And somewhere there's this disconnect between the way the world views a university and the way it actually is from the inside. And that makes me sad because people are paying a lot of money to come here and be educated and you're hoping to have the best teachers and hoping that that's their focus, but it's not always the case. A lot of people love teaching and that's why you're here. You don't make a lot of money as an engineer doing this, and so most people I know, they do it because they love it. They want to teach, but it's hard because you don't get rewarded as much for that.