Transitioning from Adjunct to Tenure Track

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Abstract

Three faculty members in the Department of Engineering Education at Virginia Tech discuss their successful transitions from adjunct faculty to tenure-track faculty. One faculty member had industrial experience, worked as an adjunct in a community college before becoming tenure-track faculty, and is now a tenured faculty member. The second faculty member had experience as a university researcher, worked as an instructor in one department and as an adjunct in another division at Virginia Tech before becoming a tenure-track faculty member in 1999. The third faculty member worked as an adjunct for 2.5 years in what is now the Department of Engineering Education and was hired as a tenure-track faculty member in 2003.

The faculty members discuss differences in job expectations, employee benefits, and university resources for adjunct and tenure-track positions, what they did to prepare for a tenure-track position, why they believe they were successful in obtaining a tenure-track position, and interviewing for a tenure-track position. With the recent departmental shift from a primarily teaching to a research-oriented focus, these three faculty members also elaborate on how they are approaching this transition as well.

Michael Gregg, Associate Professor

An alternate and increasingly less traveled road toward tenure in engineering is via industry. This is particularly true in a research university, such as Virginia Tech. Twenty years of industrial experience included self employment, government consulting (honorably referred to as a 'beltway bandit' in the Washington D.C. environs), machine design and automation, quality control, marketing and manufacturing. Reaching a 'technical ceiling' in industry – a position above which administrative duties abound but active engineering is relegated to others – required a reassessment of career path. Teaching engineering had never been considered as an option, having seemingly endured that experience as an undergraduate and graduate student. I was, however, convinced by an engineering colleague that in the world of academics, particularly engineering, politics played a back-burner role and besides, you would only teach one or two classes a week. I thus began my long tenure-track process as an adjunct teaching engineering at one of Virginia's community colleges.

As a community college adjunct faculty, I began by teaching evening engineering courses for token compensation. Courses included Manufacturing Processes, statics, strength of materials, drafting, CAD, programming and heat transfer, among other courses. The most memorable course was a three hour long lecture offered once a week covering manufacturing processes. This course proved much easier on the faculty than on the audience. In retrospect, I have to

applaud my captive industrial audience of fifty plus souls who survived 15 weeks of this Thursday evening class. What struck me in teaching engineering at the community college level was the motivation of the students – most were well beyond their 'teens and approached these classes with a need-to-know. The adjunct status morphed into a full time academic year teaching position. In this position I was the engineering department: I taught all of the classes, determined their content, selected books, and arranged my schedule. My only real contact with the college administration was at the end of the academic year for review of the mandatory teaching evaluations – a reality check on the nature of colleges and, in retrospect, a harbinger of life at the university level. The expected reduction in income (relative to industry) was offset by considerable scheduling freedom, vacations typically matching those of the students, little administrative interference, combined with considerable personal responsibility and autonomy.

A tenure track position with Virginia Tech came about via a conference between my community college and VT. The position was in VT's 'freshman engineering program' and involved teaching and advising, with no mention of a research component. I was not 'looking' for a new position and, frankly, not particularly interested in exchanging my position as 'the department' for a position as one of many faculty members teaching 1500 first year engineering students. This attitude and my general naïveté concerning university search processes were to my benefit. In addition, I over-prepared for my presentation, was relaxed (no stress), was confident in my abilities, had researched the employer and department, and took a professional approach to the interview. When I received a call from the department head with a job offer the next week I was unprepared to make that decision – I had not seriously considered the possibility of being offered the job. I took a week to decide to turn down the offer, and then spent another sleepless week before I called the department head on the off-chance that the position was still available; it was and I accepted.

The Virginia Tech position in the Division of Engineering Fundamentals (now the Department of Engineering Education) involved teaching, advising and scholarly work. There was no expectation of developing research programs or of generating substantial funding. Faculty typically taught four sections of a two- or three-credit class each semester and advised 180 engineering students. Salary levels in this division were not only less than industry, but substantially less than faculty conducting organized research. Whereas in industry you occasionally worked 60 hour weeks, sometimes 100 hour weeks, in academia, particularly the early years, 60 hour weeks are the norm. Overloaded work schedules in industry are balanced by slow periods or 'comp' time. In academia, particularly when teaching every day, you must be ready for every class, irrespective of mental or physical health. Evenings and weekends are spent preparing for classes and grading student work; weekdays are spent delivering class, revising material for subsequent classes, and advising students.

The change of the Division of Engineering Fundamentals to the Department of Engineering Education was a result of a change of mission. Advising and teaching had been the primary objective; it is now research, in conformance with the mission of a research university. This change has been substantive, particularly when the faculty member was tenured for advising and teaching. Preparation for tenure now is significantly different than in my case. I did the best professional job I could both teaching and advising students. I volunteered whenever possible for committees both inside and outside the University. I served as a member of the faculty

senate, vice-chair of the Engineering Faculty Organization, leadership roles in ASEE's Engineering Design Graphics Division, S.E. Section; and leadership of ASEE's Freshman Programs Division. I wrote papers and made presentations at every opportunity. The current paradigm is funding based. A new faculty member should make every effort to network with senior faculty both within their department and with other departments or institutions. Make connections with as many faculty with established research programs as possible in the course of establishing your own research program. Make your department look good, which generally means concentrating on research relevant to that department. Find a mentor to help lead you through the intricacies of university/government grant applications; a good university will have a mentor assigned to you. Be prepared to work tirelessly and assiduously avoid stepping on toes.

Tamara Knott, Assistant Professor

I had completed my undergraduate degree in Engineering Science and Mechanics (ESM) at Virginia Tech and had begun work on my master's degree when I had the opportunity to take a position as a Research Associate working with the NASA-Virginia Tech Composites Program. Although I was initially hired to do analytic and experimental research in mechanics of composite materials, I evolved into the manager of the experimental and computer laboratories for the program, maintaining the equipment and training and supervising graduate and undergraduate students in the use the equipment, in addition to my research responsibilities. Once I had completed my master's degree, I was asked to teach one or two sections of Statics or Strength of Materials each semester. Through this opportunity I discovered that I was a successful instructor and that I enjoyed teaching. Because of my teaching experience and success, when funding for the research position was tight I was able to transfer to a position as an instructor with the department.

In the spring of 1994 I had the opportunity to teach for the Division of Engineering Fundamentals at Virginia Tech. I taught three sections (32 students each) of the second semester freshman engineering course. My teaching evaluations were strong, and I was offered a position as an adjunct professor with the division for the 94/95 academic year. As an adjunct I was responsible for teaching four 32-seat sections each semester. In addition I was also the freshman year academic advisor for those students in my fall semester sections. At the time, teaching and advising were the primary functions of the division. Although the tenured and tenure-track faculty were involved with university service and expected to conduct scholarly work, as an adjunct I was not involved in these activities. I was able to focus on my teaching and my students. I was also available and willing to fill in for colleagues when they were unable to hold class. During this year I was excited to learn that the division was hiring for a tenure-track position. I applied for the position and was successful in making the "short-list". While knowing my colleagues made the interview process somewhat relaxed it was also challenging to give a formal presentation introducing myself to the faculty. Unfortunately due to budget cuts at the university all permanent hires were frozen and the position was not offered. While disappointed to learn of this development it was perhaps best in the long run. I was asked to continue in my adjunct position for the coming academic year; however, since my second child was due on the first day of fall classes I had to decline. There was no provision for me to take maternity leave as an adjunct. I did however teach summer school classes for the division that summer.

I was invited to teach part time with the Division on Engineering Fundamentals in the spring of 1996, but decided to take a part time position as a research associate with another department instead. I felt that personally this was a better option with two young children. Although I loved teaching, I knew that it was demanding and felt that I would have a difficult time balancing my family and my students.

In 1998, the Division of Engineering Fundamentals was again hiring for a tenure-track position. I felt the timing was right so I again applied. I had had little contact with the division in the previous two years but found that I still knew many of the faculty members in the division. I was one of three tenure-track assistant professors hired in fall 1999. I believe that my previous experience teaching for the department, and their first hand knowledge of my student centered teaching style and my willingness to step in and help out, were instrumental in my being offered the position.

When I began my tenure-track position with the Division of Engineering Fundamentals in fall 1999 the primary focus of the division was teaching and advising the approximately 1200 freshman engineers entering the college each fall. I was responsible for teaching four 32-seat sections of Introduction to Engineering each term and advising approximately 130 freshman engineering students until they transferred to a degree granting department. I was expected to provide service to the university community and the profession. I was also encouraged to engage in scholarly work, with a goal of presenting and/or publishing on the order of two papers every three years. During my first year I focused on my teaching and my students. I attended numerous faculty development programs both at VT and elsewhere. Though working with my students I identified a need for a support program and was successful in receiving a grant from the university to design and run the *Engineering Success Seminar*. In my second year in the tenure track position, in addition to my general teaching and advising responsibilities, I was responsible for designing and coordinating the success seminar. To develop my service portfolio I became involved with outreach activities in the college, participating in programs provided by the Center for the Enhancement of Engineering Diversity and volunteering to represent the division at open house functions. I had attended the ASEE annual conference in the summer after my first year and I chose to become actively involved with Freshman Programs Division (FPD). I served as a reviewer and moderator for one of the Freshman Programs Division (FPD) conference sessions in the summer following my second year and was elected to serve on the board of the FPD. I began to develop my scholarship portfolio by becoming actively involved with the curriculum renewal efforts in the division and working with a colleague on a paper which was presented at the ASEE conference and the National Academic Advising Association (NACADA) conference.

In the ensuing years I have continued to maintain and build my service portfolio. I have been particularly active with the Freshman Programs Division of ASEE serving as Program Chair for the annual conference and subsequently as Division Chair. I have become to faculty advisor to the Society of Women Engineers at Virginia Tech and I continue to be an active participant in outreach events such as serving as a judge for First Lego League competitions. My teaching and my students continue to be a primary focus of my work. I regularly participate in faculty development sessions on our campus and have been involved with several faculty study groups.

I have continued to develop my scholarship portfolio though collaborative efforts with several different colleagues. My earlier work on the curriculum renewal, supported largely through the SUCCEED coalition, has been an excellent springboard leading to my participation in an NSF Bridges for Engineering Education planning grant and a subsequent NSF Department Level Reform Grant that have been awarded to faculty in the Department of Engineering Education and the School of Education at Virginia Tech.

I believe that I have been successful as a faculty member for several reasons. As a speaker recently commented at a SWE meeting, to be successful you need to "get your foot in the door", and then make yourself a "known quantity" in a positive way. I believe that I was initially hired for a tenure-track position as a result of taking full advantage of the opportunity to serve as an adjunct faculty member. In developing a well rounded portfolio of teaching, service, and scholarship I have continually taken advantage of opportunities to get involved and to make a difference. I enjoy what I do and especially my interactions with colleagues and students.

In 2004 the Division of Engineering Fundamentals was restructured as the Department of Engineering Education with an increased research mission. As a result of this change, the criteria for tenure are evolving. This year I am up for mandatory tenure-review and I am in the first "class" to be evaluated since the change to department status. I believe the active development of my teaching, service, and scholarship portfolios will serve me well, and by June I should know whether or not my case was successful.

Jenny Lo, Assistant Professor

My family first moved to Blacksburg when my husband obtained a faculty position at Virginia Tech in 1999. I graduated from Carnegie Mellon with a Ph.D. in Chemical Engineering in December of 1999, and in spring 2001, I interviewed for a position to teach as an adjunct in the Division of Engineering Fundamentals. My main responsibilities included teaching and holding office hours, which was also the primary job function of tenure track faculty members in the division. As such, I of course wanted to do an exemplary job teaching. I put in the extra effort to do everything possible to improve student attitudes and learning, including weekly evening review/study sessions and extended office hours.

To me, the biggest differences between a tenure and non tenure track position include career advancement opportunities at the university and college level as well as the salary. The salary for a non tenure position is significantly less; however non tenure track faculty are not expected to write proposals, attend meetings not related to the classes they teach, do or present research efforts, nor participate in service/outreach activities. On the other hand, if a non tenure member wants to apply for internal grants, he/she is likely to discover that many of them are reserved for tenure track faculty only. Also, at Virginia Tech, many university and college committees restrict membership to tenure track faculty. Being a woman at Virginia Tech, I also know that maternity leave policies are different for non tenure and tenure track faculty at this university. The family leave policies were much more generous, in terms of paid leave, for tenure track faculty.

During the spring semester, a tenure track position was available. While I was qualified to apply for the position, I knew that another internal applicant was better suited than I was. I did not have the industrial or teaching background that the internal candidate did. Also, I was still concentrating on being a mother to my first child.

My teaching evaluations for that semester were above average, and I was hired as a full time visiting faculty member in fall 2001. My responsibilities were increased to include advising freshmen engineering students and the number of sections was increased to four, which was considered a full load. For the next two years, I began to take on duties that were not expected of non tenure faculty. This included participating in service-related events. I attended many minority and gender diversity receptions/luncheons for the College of Engineering. I also went to a few of the Engineering Faculty Organization's meetings; the organization is one that acts on behalf of the engineering faculty. I hosted workshops for junior high and high school summer camps that were sponsored by the university. With the additional responsibilities, I reduced the extra out of class time I was spending with students but looked for chances to improve my teaching skills. I attended a few of the faculty workshops meant to enhance instruction and learning sponsored by the university's Center for Excellence in Undergraduate Teaching. For the most part, the reduction in additional out of class time did not affect my teaching evaluations.

I became the spring course coordinator for the introductory level engineering course. This was a position typically held by tenure track faculty members. During my coordination, I created the common syllabus and managed course details for three to four faculty members.

I networked with colleagues and administrators in the College of Engineering. I attended The College of Engineering's female faculty luncheons, hosted by the College of Engineering's Associate Dean of Academic Affairs. Likewise, I developed social and professional relationships with other members of the division. While I never asked for or was officially assigned a mentor, the faculty of the division were not only helpful in answering specific questions related to policies, student advising, or the class I was teaching, but they shared honest career advice.

I attended all division faculty meetings that I was eligible to attend. This was very important as I gained insight into the direction of the division and allowed me to see the tenured and tenure track faculty members on a regular basis. During 2003, it was clear that the division would become a degree-granting department and that there would be an enhanced research mission.

I knew that in the long run, to be competitive for a tenure track position in the newly formed Department of Engineering Education, I would have to show that I was capable of beginning a research program. In an effort to increase my own research activities, I became involved with research efforts going on in and outside of the division. I understood that it was going to be critical to apply for research funding through external agencies. I had always been interested in increasing the number of undergraduate researchers and expressed this interest to the Associate Dean of Academic Affairs, who has been critical in bringing together groups of faculty members with similar goals and interests in a constructive manner. Through the Associate Dean, I met another visiting faculty member interested in undergraduate research. As a team of three investigators, we submitted and were awarded an NSF CCLI grant to introduce a technical

communications course based on undergraduate research efforts. In another attempt to increase research activities, I became involved in an NSF Bridges to Engineering proposal, which was also funded.

In spring 2003, another position became available. I was pregnant and had concerns about maternity leave and how my pregnancy would be viewed. My peers strongly encouraged me to apply. I was fairly certain that I would be on the list of final candidates to interview, but in retrospect, I should not have been so overconfident and composed a stronger cover letter. As an internal candidate, the interviewing process felt awkward. I had access to all of the other candidates' résumés, but I chose not to look at them. I would see the other candidates in the hallways, but I did not feel comfortable being introduced to them. Since I knew many of the faculty members on a professional and social level, my own personal interviews felt a little contrived. Most of the questions focused on expectations regarding the position, what my research interests were, and my teaching philosophy. There were no discussions on my background, the community, or the perks of working for the university. I put together a professional presentation based on the search committee's requirements and dressed in a suit, which is not the standard working attire at the university.

The position was offered to another candidate; I was disappointed of course. However, by some stroke of events, another faculty member who had been on leave decided not to return. This person's position was offered to me. I strongly believe that the key reasons I was hired are: (1) I did more than was expected of me during my non tenure time (2) the division felt I would be successful in pursuing research in the new department (3) I interacted with my peers in a positive manner. I suspect my gender may have also been advantageous. I began my tenure track position in fall 2003. During the summer following this, the division became the Department of Engineering Education. Since then, I have gained an official mentor, participated in several collaborative research efforts, become the faculty advisor for students interested in starting a colony of an international female engineering sorority at Virginia Tech, attended conferences to disseminate work and to network, increased publication efforts, and become the lead coordinator for the introductory level engineering course. I am very excited about the transformation that is taking place at Virginia Tech. The department will soon offer graduate degrees and is conducting educational research that will likely change the way new engineers are trained.

Biographical Information

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