Finding and Keeping Good Faculty

Jerry W. Samples, Kathy Bearden, Donald D. Harter
University of Pittsburgh at Johnstown

Abstract

The availability of faculty with academic credentials is never a problem when engineering technology programs cast their net. Unfortunately, most of the catch must be thrown back because they lack industrial experience, thus not meeting the basic credentials requirement of TAC of ABET. The other side of the coin is the lack of stability caused by three employment factors: the return to academe of very experienced industrialists, the retirement of long standing professors, and the departure of young scholars to seek their fortunes in the competitive industrial environment. This paper describes faculty transition problems and offers solutions that lead to better stability within engineering technology programs.

Background

Imagine a three-year period in which the following events occur. One faulty member fails to receive tenure and suddenly departs for a new position. A newly tenured professor decides that teaching just isn’t as enjoyable as it should be and leaves for industry. Five faculty members decide to take the University’s retirement offer that includes a healthy incentive. One faulty member is hired from graduate school and has just slightly over the minimum industrial experience, and another comes from industry after 20 years of industrial experience. Nine personnel actions in three years within a faculty of 17.

Instability of that faculty is certainly a problem and one that must be dealt with to ensure program stability. The remaining faculty must decide on the direction of programs, look at class sizes, be concerned about teaching overload, and be flexible and creative as teaching assignments are developed. The faculty needs to look at the instability as an opportunity to reshape and update the faculty. They must also assess the situation and determine factors that affect individual decisions to stay or leave, and they must put in place a mechanism to find good faculty with an eye on the reasons that faculty stay, to ensure a match. It is this match that will foster retention. Of course, the tenure process, mentoring, workloads, and expectations must be balanced to assist faculty who want to stay and are encouraged to do so.

Information

In any problem solving situation engineers define the problem, i.e. there is faculty instability, and generate courses of action based on knowledge of the subject. There are two questions that faculty need to consider during the analysis process, why stay at your current institution?, and what characteristics of a new hire are important in defining a good fit in the current faculty? A brief survey of the faculty at the University of Pittsburgh at Johnstown provides answers to both questions. The survey was not scientifically prepared and the results are not statistically supported, but the answers represent what this faculty thinks and indicates how they might go about choosing new faculty members. A hiring action is currently underway so this information is timely and important to the success of the search.
The responses to the question on, why stay at your current institution?, had varied responses; the top four are listed below.

- Colleagues, who are fun to work with, are professional and provide a working environment that is conducive to the educational process.
- An academic environment that fosters freedom to develop programs, encourages consulting and research, and places application above theory.
- Working with students who work hard, have a purpose, and appreciate the success they achieve and the role of the instructor in that process.
- The local community, the recreational possibilities, and the opportunities to serve the community in a variety of ways.

There are few surprises here as the faculty is viewed from a distance. There is an obvious synergy, but until they wrote their responses, it was not obvious that the order was as listed.

The results of the first question are important because they tie directly to the next question; what characteristics of a new hire are important in defining a good fit in the current faculty? The top four answers to this question are:

- Works well with others: is a team player.
- Technically competent from an academic standpoint.
- Has extensive, relevant industrial experience.
- Has the energy and enthusiasm required to be a good teacher and the desire to be a good teacher.

Answers one and four are important as they define feelings and expectations of the faculty that are hard to measure in an interview, but constitute behaviors that the faculty feel are important. The fourth item can be observed during the interview by requiring candidates to teach a class and assessing those in-class items that are important, such as enthusiasm and energy.

The survey to faculty with lots of experience produced one point of view; but they are not under the gun. They have tenure and are reflecting on what made them stay for the long-term. Current tenure stream assistant professors may have a different view of the future. To obtain the view of the tenure stream assistant professors another survey was developed with the same caveats about statistical validity and scientific development of the instrument. The questions and the answers are listed below:

1. Why did you decide to take your current job?
   - To Teach!!
   - Background fit the requirements.
   - Teaching rather than research institution.
   - Comfort with department size, members and university size.
   - Goals of engineering technology fit with what I liked to see on “other side” as a hiring manager of engineers.
   - Location.

2. What will keep you here?
   - Variety of teaching assignments.
   - Caliber of students.
   - Time to pursue activities of interest (not necessarily fundamental research, but new skills and applications.)
   - Good work environment.
   - Acknowledgment of good work.
   - Raises.
   - Open dialog.

3. What kind of assistance is appropriate to help you stay here? Mentor?
   - Mentor is excellent suggestion.
   - Keep me on the tenure track.
   - Guidance in finding the right stops along the tenure time-line, i.e., good committees, assistance with initial papers and other activities.
• Adequate time for professional development.
• Support of new course development in the way of money and time.

4. What things have you identified as important in making the decision to stay in your current position?
   • The job needs to stay interesting, challenging, and fun.
   • Positive environment vs. the negative environment of so many down-sizing companies.
   • Flexibility.

5. What will likely influence you to leave?
   • Impatience with the academic bureaucracy.
   • Inability to successfully complete tenure process, particularly professional development.
   • Inadequate resources, especially money and faculty.

As expected, there is a difference in the attitude of the tenure stream professors and the long-term professors. That attitude difference can best be summed as apprehension with regard to the tenure process. While fun, environment, flexibility and the ability to teach are common, the concerns over tenure are apparent in the responses of the new faculty, and rightfully so. While all this is obvious to everyone in academia, sometimes it takes seeing it in print to cause the creative solution mechanisms to get into gear.

Solutions

Finding good faculty members is normally not the problem. If there are sufficient applicants, the search committee has many ways to identify the candidate they like best. They should remember that they are looking for something defined by them, and that there is no excuse if they select someone who does not fit the description. If teaching is important, then they need to evaluate teaching. If research is important then they should ask for a research plan with adequate detail to evaluate the plan. If a team player is needed, then references are critical to the selection. In any case, the selection is important, not only for the institution, but also for the candidate. A bad match doesn’t get better with time.

Once the new hire becomes the tenure stream assistant professor, then the emphasis changes. If this is a person the faculty like, and want to have around for a long time, then the faculty must help this person through the tenure process. Mentors, directions and HELP are screaming from the responses received from the survey. Few new faculty members have any idea how to get tenure and many have little experience writing journal articles. This is especially so of the faculty with industrial experience who have written reports, but not journal articles. There is safety in not writing in favor of teaching since no one likes to have work refused. This is where the mentor must get involved.

A time-line is the best way to get the process going and on schedule. A brief description of the process is available and can be the foundation of a more complex procedure. The faculty must recognize that new faculty members need assistance and be prepared to provide the same. If the selection process is based on the collective wisdom of the faculty, then keeping the faculty is a collective effort initiated by the concerns of those in need. If a good job was done selecting the new hire, then it is worth the effort to help keep this person.

Conclusion

Finding and keeping good faculty is a process that requires information gathering, careful execution of the search, and then mentoring through the tenure years. Some will be concerned that this is baby-sitting: not so. Mentoring is not doing, and those who fail when mentored are going to go. In these cases the institution, the faculty and the person leaving will all see it
coming before it happens, and it will be documented. We are not in this to fail people, we want to help, but sometimes help is not accepted thus violating the number one criteria of the search committee: someone fun to work with.

References


Jerry Samples
Jerry Samples is Professor and Director of Engineering Technology at the University of Pittsburgh at Johnstown. He holds a BS ChE from Clarkson College, and MS and PhD in ME from Oklahoma State University. He taught at the United States Military Academy for 12 years before assuming his current position. Much of his recent writing has been in the area of foundations of good teaching and development of advanced teaching methods.

Kathy Bearden
Kathy Bearden is an Assistant Professor of Mechanical Engineering Technology at the University of Pittsburgh at Johnstown. She holds BSME and MSME from Virginia Polytechnic Institute and State University. She has numerous years of industrial experience with companies such as Westinghouse, Concurrent Technologies Corporation and Contraves Goerz Corporation.

Donald D. Harter
Donald D. Harter is an Assistant Professor of Electrical Engineering Technology at the University of Pittsburgh at Johnstown. He holds BSEE, MSEEE, and Ph.D. in Engineering from North Dakota State University. He has eight years of teaching experience, and has worked as a Software Engineer at Hewlett Packard. His academic interests include: software engineering, microprocessor control systems, system identification, and spectral estimation.