Nibbling the Bullet

Daniel Kleppner

At the age of 95, Professor X passed away peacefully while working in his laboratory, just as he had desired. His obituary touched me deeply, and I would like to share a portion with you.

"Professor X was a physicist's physicist who never lost his passion for science, his imagination, or his irrepressible enthusiasm. Although the years dimmed his vision, stiffened his fingers, and, one must admit, somewhat dulled his mind, his students revered him. Following his wishes, there was no funeral. Instead, colleagues and friends gathered at the interment for a moving ceremony conducted according to his own instructions. X was buried surrounded by his notebooks, his laboratory equipment, his stores of supplies and spare parts, and his students."

X's devotion to science was total. By refusing to let death itself interfere with his research, he has added yet another first to his illustrious record: First physicist to pursue posthumous research. Although it will take a little time to judge the ultimate success of his final career choice—a year or two is usually required to restart a laboratory, and there may be additional delays due to special problems of death—the prognosis is good. His equipment is excellent, his supplies are ample, and his students are all first rate.

THE NEW UNIVERSITY?

But much as I admire X's dedication to science, I cannot conceal some misgivings. Other physics faculty are likely to follow his example, and as they do the character of physics departments will inexorably change from generally alive to mostly dead. Students are sure to notice that their teachers have become profoundly disengaged, and may subject them to ridicule. Young scientists may turn their backs on academic careers when they notice that the faculty positions are all filled, for eternity.

In spite of these misgivings about X's career decision, in fairness I should point out that it is hardly revolutionary: He merely took one more step along the path that Congress charted with the Age Discrimination in Employment Act (ADEA) of 1964. By extending the age for mandatory retirement from 65 to 70, the ADEA made continued employment possible for millions of citizens who can work, want to work and often need to work. The arguments for the ADEA were so attractive (or perhaps the senior citizen lobby was so insistent) that in 1984 Congress amended it to totally eliminate mandatory retirement. Mere age is no longer a reason to stop working: as long as you can do the job, you have the job.

The ADEA permitted exceptions for a few occupations in which errors in judgment can have tragic consequences—airplane pilots, police, and judges, for instance—but aging professors pose little risk, and academia was given no special consideration save for a grace period of a few years. Finally, in 1994, mandatory retirement was abolished in US universities and colleges.

Only a cold heart would argue that someone whose work is satisfactory should be forced to stop because of age. There is no great mystery in determining whether a person's work is satisfactory. Good management practice dictates that supervisors periodically review their employees' performances. Employees whose work is good should be rewarded, but if their work is unsatisfactory, they should be let go regardless of their age.

The problem is that although good management practice may dictate periodic evaluation, the tenure system essentially forbids it. Academic tenure is usually awarded only after a demanding, even harsh, evaluation process, but once tenure is awarded, evaluation ceases. Further evaluation is prohibited because freedom from interference lies at the very heart of tenure, and to evaluate is to interfere. It is because evaluation is irrelevant that the responsibilities of professors are generally left vague and academic lines of accountability are practically invisible. In principle, faculty members report to department heads who report to deans who report to provosts who report to presidents (with variations depending on local customs). But as department

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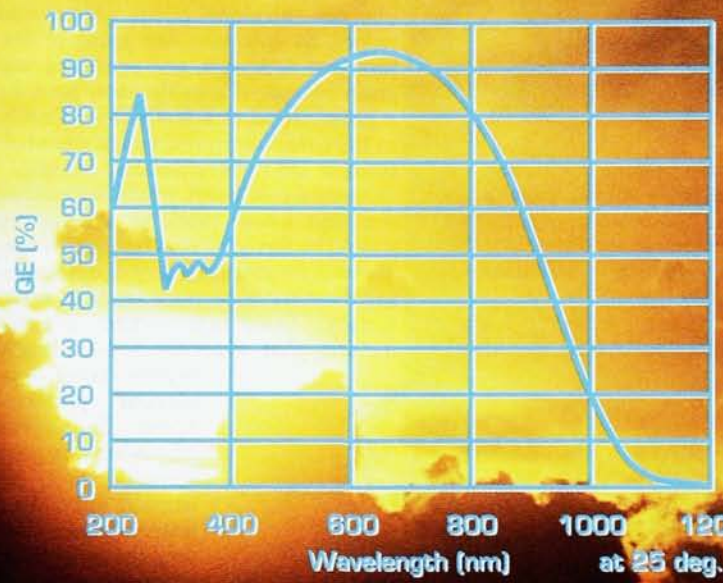

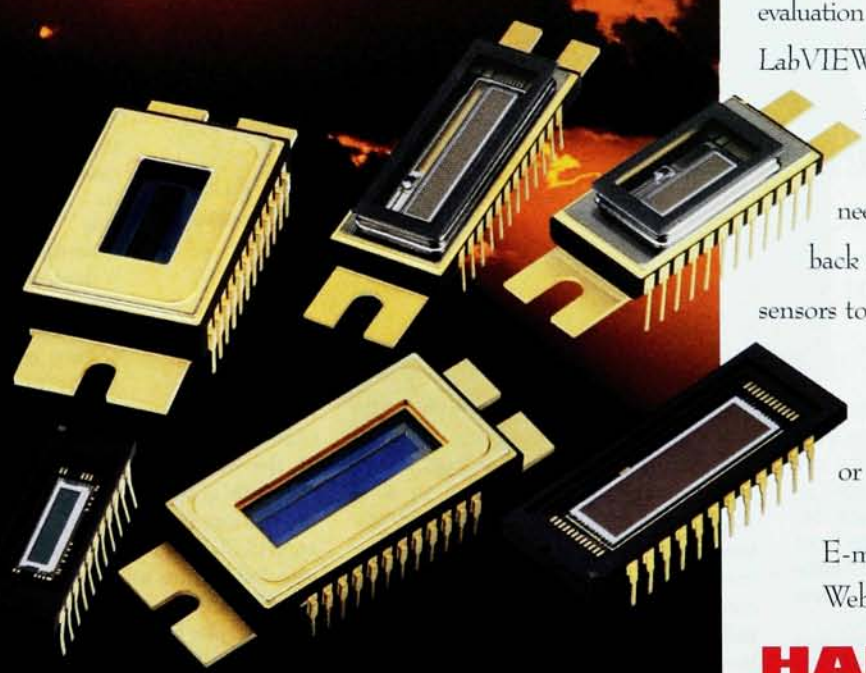

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heads and higher-ups know to their frustration, within broad limits no one can tell a tenured faculty member what to do or what not to do.

The ADEA has thrown a monkey wrench into the tenure system. Previously, tenure meant freedom to work without interference, until retirement. Now, tenure means freedom to work without interference, forever. Tenured positions, always highly privileged, have become highly overprivileged. By guaranteeing aging professors perpetual employment irrespective of their performance, the ADEA has created a grave problem for universities.

It is hardly surprising that the tenure system itself is now being questioned. Does tenure deserve to be preserved? Its fundamental rationale is usually based on academic freedom, though in reality political or ideological disputes rarely intrude into the physical sciences. For scientists, the essential value of tenure is its guarantee of intellectual freedom. Seminal scientific advances rarely emerge from five-year plans; they are more likely to emerge from an apparently unproductive period of simply "messing around." Whatever the reasons, professors cherish tenure sufficiently to accept the anxieties of earning it, and to choose academic appointments in favor of much more lucrative careers. If tenure is discontinued, it seems probable that some of the best minds will turn away from academia.

In refusing to exempt tenured faculty from the ADEA, Congress not only threw a monkey wrench into the tenure system, it created major problems for universities and aspiring faculty, and generated some potential obstacles to our scientific future. Universities now have the financial burden of paying aging professors top salaries. The burden is actually doubled since these professors must be paid twice—once in the pensions that the universities previously set aside and once in the continuing salary.

This financial windfall for aging professors comes at the expense not only of the university but also of young scientists for whom academic positions are blocked. The blockage is not a mere transient effect. If the average tenured career of professors were to lengthen from, say, 30 years to 35 years, the appointment rate would be permanently reduced by 15%. The actual reduction would be even greater, since faculty size is usually determined by department budgets, and a senior professor typically costs twice as much as an assistant professor.

The ADEA has further costs. One of these is borne by students who must be taught by aging faculties. Some extraordinary teachers continue to excite and inspire through old age, but teaching is hard work and most teachers slow down. Another cost is borne by science. With aging faculties and a dearth of young scientists, old lines of research are sustained at the expense of the new.

The ADEA should be amended to permit mandatory retirement for tenured professors. Tenure is a great privilege, and accepting retirement at age 70 for instance, is not an unreasonable price to pay for it, particularly if there are opportunities to continue a professional life. Politically savvy friends, however, tell me that the senior citizen lobby would oppose the smallest change. Failing such a change, the tenure system will be doomed unless universities and professors can achieve a reasonable accommodation. First, universities must accept the general principle that retirement from an academic position need not be synonymous with retirement from a professional life. For emeritus professors with active programs that require space and facilities, universities should make every effort to allow them to continue their research, with some reasonable plan for eventually turning over the space to younger faculty. At the minimum, emeritus professors should have an office and opportunities to maintain professional involvements.

But no matter what accommodation universities make, tenure will be doomed if professors refuse to retire. In some fortunate departments there is no problem. By general agreement no one past the age of 70 blocks a faculty position. Perhaps other departments can learn from their example. But if professors refuse to retire at an appropriate age, morale throughout the department will inevitably suffer. And if I may be permitted a private word to Professor X, whose subscription to PHYSICS TODAY I assume is still intact: We think you are wonderful, but this is a good time to give up your Chair, to step aside or roll over, whichever you prefer. Young scientists are waiting for an opening, and while they wait, your department is going broke paying you. There are all sorts of things to do without hanging on to your professorship. Possibly you can keep your research going, perhaps you can strike up some new collaborations, or maybe you would enjoy something totally different. With so many possibilities, retirement no longer means that you must simply bite the bullet. But don't ignore it, either. At the very least, please nibble. ■