



PRODUCTIVITY

Incentives on the job, and how they matter

What would happen in a world where permanent employment was guaranteed? The concept of academic tenure provides an interesting case study.

Let there be little doubt: academics have the best jobs. When we teach, we get to fill young, smart minds with ideas we care about and believe in. When we undertake research, we get to explore these ideas further, understanding the world and how it works a little better.

We often work in tranquil settings, surrounded by like-minded individuals in search of (the) truth, or, for those of us who shy away from people, books that do the same thing. Sometimes we get to travel to nice places to meet more like-minded people and share ideas. Sometimes we even take sabbaticals, to reflect more deeply about the world and how it works without the need to do anything else.

Best of all: even if we don't do most of these things, we have job security for life.

Universities are some of the oldest institutions. Although the role of professor has changed somewhat over the centuries – we used to have to earn our income when students paid to enter our classrooms! – the system of academic tenure, where an appointment is permanent, and one cannot be fired except under extraordinary circumstances, has been around for more than a century. It's decidedly different to the private sector, where the biggest incentive for working hard is to not get fired.

While SA academics get tenure almost immediately after their appointment (there is usually a probation period), 'getting tenure' is a big thing in the US. The first five years after appointment is a race to publish in top journals. If your tenure evaluation comes up, and you have not published well enough, you won't get it, and you will have to move elsewhere, or quit academe. Once you get tenure, though, all the incentives to publish are removed; continued research depends entirely on the goals you set for yourself.

Here are two very different systems. In the first, the incentives are clear: publish or perish. In the second, there are no external incentives like the threat to job security. Which of the two produce the best results?

Let's first look at why academic tenure was introduced. There were mainly two reasons. First, tenure provides academic and intellectual freedom to pursue new avenues of inquiry. Second, it provides a sufficient degree of economic security to make the profession attractive. It's the first – the unencumbered pursuit of truth – that is still upheld as the indisputable defense for tenure.

Does it stand up to empirical support? Three economists, Jonathan Brogaard, Joseph Engelberg and Edward van Wesep, used their own profession to find out. In a paper published in the Winter 2018 issue of the *Journal of Economic Perspectives*, they measure

the research output of almost 1 000 academic economists in the five years before tenure and the ten years after. They measured quantity of output, as well as quality. They create two measures: 'home runs' are papers that are highly cited (in the top 10% of papers published in the same year) and 'bombs' are poor-performing (papers in the bottom 10% of citations that year).

Their results are emphatic: publication and home run rates rise to tenure, peaking in the year a researcher comes up for tenure and the first year of tenure, but then fall off a cliff, with publication and home run rates 15% and 35% lower in years 2 to 10 after tenure. Bomb rates increase by 35% after tenure.

The authors consider various reasons for the drop in productivity and success. Perhaps it's a 'time since PhD' effect, in that older people are less productive, but the authors find no evidence to support this. Perhaps it's the rise in service, teaching and other nonacademic obligations post-tenure, but that would not explain, for example, the increase in bomb-papers. Perhaps tenure encourages researchers to take bigger risks and branch out into new areas of research. The authors measure this by looking at where the authors publish, and find no difference in the uniqueness of co-authors or journals. Perhaps the averages mask elite researchers' performances. But even when the analysis is limited to top US universities, the results hold true. Perhaps it takes time for truly novel research to gain traction. But the results stay the same for a sample of papers with 20-year lags.

Their analysis suggests that tenure is bad for research productivity.

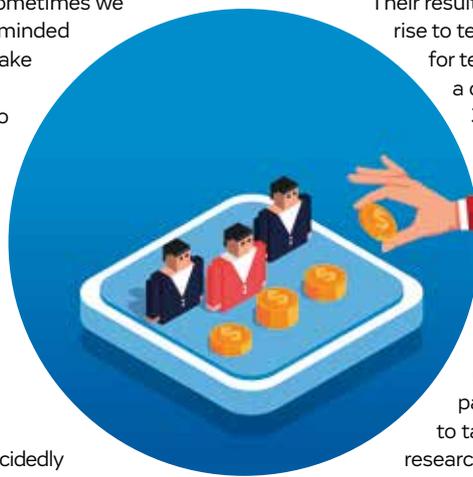
This is not necessarily to say that the tenure-system is bad: had it not been there, the number and quality of PhD students that aim for academic positions would probably have been lower. The possibility of future economic security is the incentive that really matters in drawing the sharpest minds into the field.

But it does suggest two things. On a practical level, giving tenure too early may be a bad thing. The SA system almost assumes tenure at appointment; I don't know anyone that has not received a permanent appointment for failure to publish. By extending the timing of tenure to at least five years, and making 'not getting tenure' a realistic threat, government can get more research

for their proverbial buck. At a more general level, the study clearly shows how important incentives are. A world where permanent employment is guaranteed with no performance appraisals is a world where output falls and innovation dies. Even academic economists sometimes need reminding of that. ■

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