Recruiting talented researchers is easier in recessions and universities benefit from increased productivity.

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Between the end of 2007 and the middle of 2009, Britain and the United States experienced the worst recession for more than half a century. Evidence suggests that during that time entry into high-paying and high-risk private sector jobs declined substantially while many talented graduates tried to stay on at university. Using data of economics PhD graduates, **Michael Boehm** *and* **Martin Watzinger** *find that universities benefit from recessions because in downturns they can recruit more productive researchers than in booms.*

Graduates starting their career in a recession have lower wages, higher unemployment rates and worse career progression. This is true even more than a decade after the recession has ended. The severe adverse effect of recessions is obvious to anyone who was around during the last seven years. Yet, why does the impact last for such a long time?

One reason seems to be that in recessions graduates choose different types of jobs – voluntary or involuntary – leading to different career trajectories. For example, one study found that MBA students from recession cohorts are much less likely than boom cohorts to secure a well-paying job in finance. Instead, recession cohorts start out (and stay on) in more stable, but lower-paying, sectors. Other studies showed that this effect extends far beyond the "elite" group of MBAs and that more very able graduates decide to continue with a Masters or PhD when outside labour market prospects are dire. If you went to school in London during 2008/09 – as did one of the authors of this blog – you will know real-world examples to back up the statistical evidence.

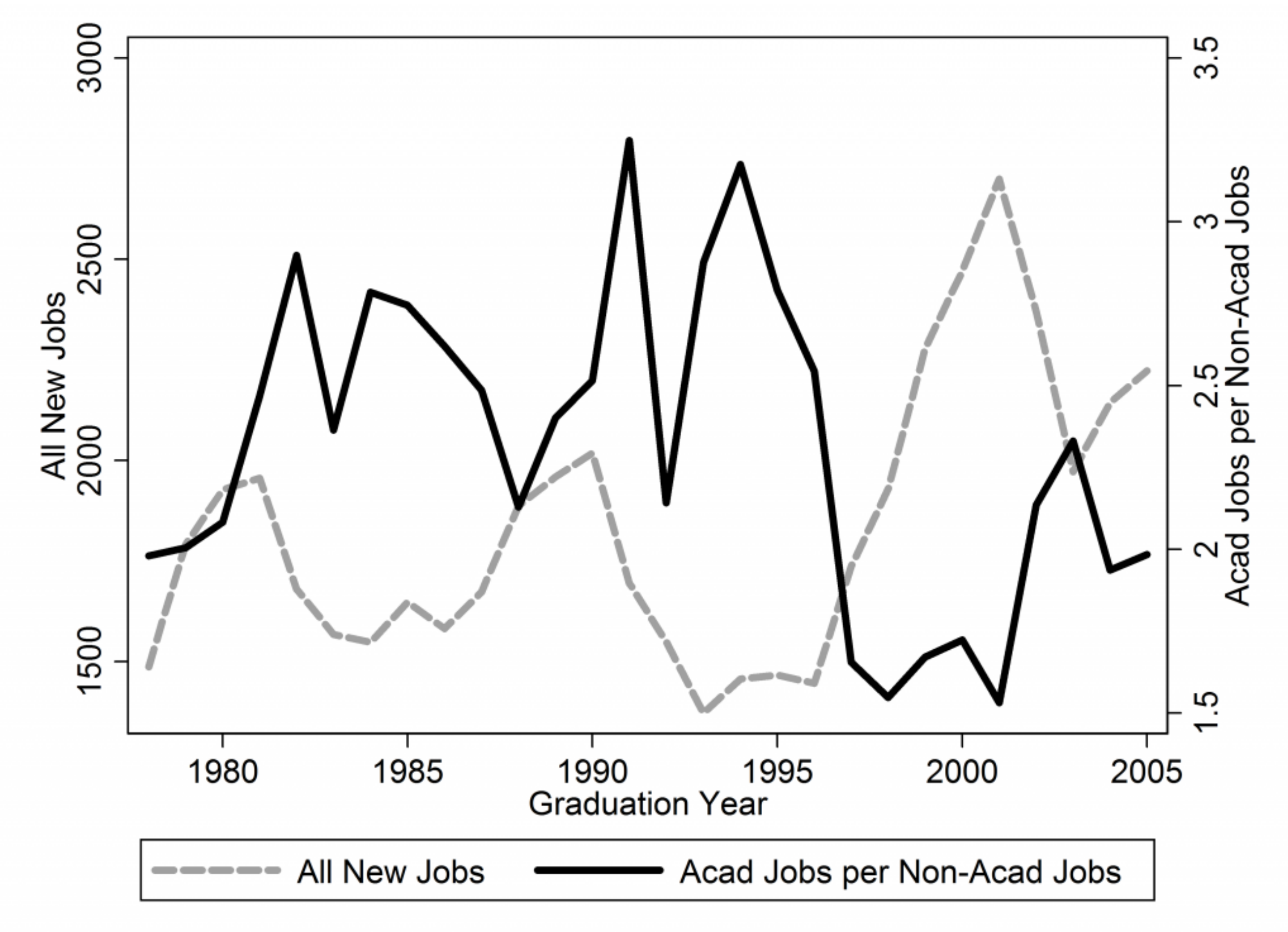
Image Credit: Olaf E. Caskin (Public Domain)

But if the high-risk, high-pay private sector jobs become scarce and more of the best and brightest try to stay on at university, does this have an effect on academia itself? In our research we look at one area that produces graduates for both of these potential types of employment: PhD programs in economics. We collected information of graduates from the 30 best economics departments in the United States over almost four decades. Each person's data includes the graduation year and institution as well as all publications in peer-reviewed journals for the first fifteen years after graduation in order to get information about long-term productivity. We match this data with information about the business cycle (whether the economy is recovering, booming, contracting or in recession).

In normal years economics graduates from these top 30 schools, which could be compared to the Russell Group universities in the UK, are likely to have very attractive options in academic employment at universities and research institutions as well as the private sector, including finance and other high-level professional services. Our conjecture is therefore that some members of recession cohorts extend their education and enter a PhD / doctoral program and maybe even stay in academic research after finishing their PhD.

Academia, as the public sector more generally, is relatively stable over the business cycle in terms of the number of jobs and compensation. Figure 1 underlines this point for our market of PhD economists as it plots the relative number of academic job offers against overall demand. We can see that the two move against each other. Therefore it remains possible and attractive for the most talented individuals to pursue academia even in the worst recession.

Figure 1: Overall- and relative academic job offers over the last three decades



The good thing about studying academics is that their “output” and productivity can be readily measured. Academia and more generally the research and innovation sector have the unique feature that the individual contributors’ names appear on published research papers or patents. In these sectors we can therefore attribute output and productivity to individuals who have started their career during different phases of the business cycle.

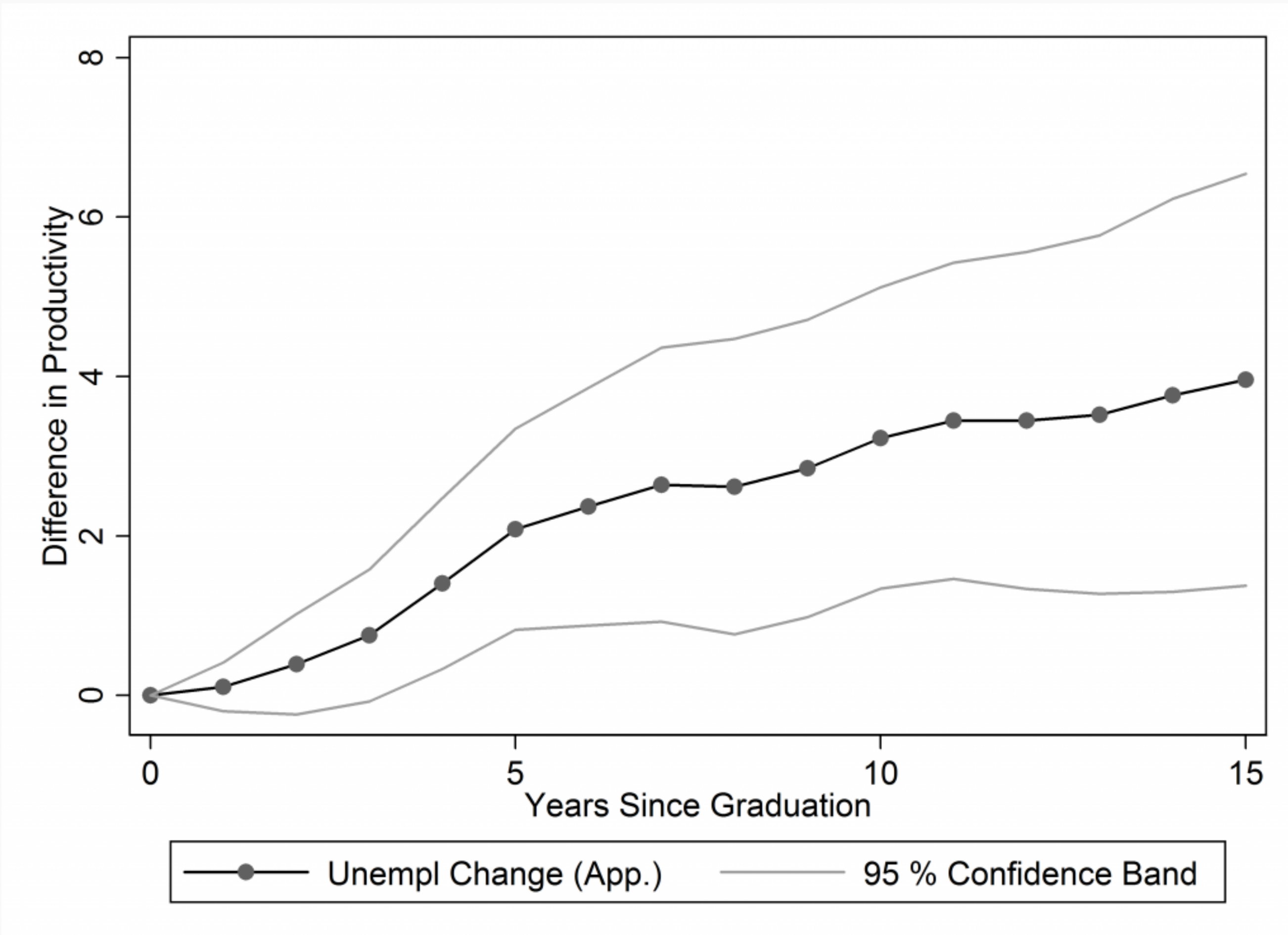
Our findings in terms of the impact of recessions in academia are very much in line with our hypothesis: finishing the PhD in a recession makes it more likely for the graduate to stay in academia and on average these researchers are substantially more productive. Per graduate, recession cohorts publish 12% more impact-weighted research papers during the first decade after graduation. This implies that academia really is benefitting from the crisis in terms of the talent that it can attract.

The evidence is even more striking if we look at the business cycle when these individuals applied for the PhD. On the one hand, those graduates who applied during recession times are less likely to end up in academia after they finish. On the other hand, however, those individuals from the “recession-at-application” cohorts who do stay in academia publish 17% more on average.

These findings are consistent with the idea that some very able students who would otherwise have opted for a private sector career decide to pursue graduate education in economics during recessions; and that some of those individuals move to the private sector eventually after they graduate when the recession is over but that also some of them stay in academia and become more productive researchers than the overall average.

Figure 2 plots these productivity effects over the long-term of 15 years. The productivity gap between recession and “normal” cohorts widens steadily, which suggests that there are really permanent talent differences between these groups. Our findings thus indicate that recessions have a real and tangible long-term benefit for the academic sector in economics because during recessions it can attract additional high-talented workers that otherwise it wouldn't have been able to attract.

Figure 2: Difference in research productivity between average year and recession applicants over time



Note: unemployment change at application is used as a measure of the effect of the business cycle on labour market prospects of workers.

We expect that the mechanism that we uncovered for the US academia should apply to the UK academia as well – especially with its top-notch and internationalized professional services sector that is a well-paying but also highly volatile employer. Moreover, economics is not the only subject that is in high demand by employers. For example, graduates from the so-called STEM fields of science, engineering, technology, and mathematics with their excellent quantitative skills and logical reasoning ability are very much sought after by finance and consulting firms (at least in boom times).

Finally, what can we say about the PhD graduates and applicants from the 2008/09 recession? These individuals have by now entered the labour market, yet it is too early to measure their productivity with any confidence. But we'll definitely keep watching them…

The research that the blog refers to can be found under this link.

Note: This article gives the views of the author, and not the position of the Impact of Social Science blog, nor of the London School of Economics. Please review our Comments Policy if you have any concerns on posting a comment below.

About the Authors

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