



The Growth of Doctorates in Germany

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Abstract

The number of doctoral degrees awarded in Germany, which was already high, is growing. The German Excellence Initiative is the major growth factor. Doctorates awarded by universities of applied sciences (UASs) do not play a statistically significant role (yet). However, the traditional university monopoly on awarding doctoral degrees is clearly eroding. In the face of “massification” of the doctorate, Germany still tends to opt for horizontal diversification rather than vertical stratification.

Is Europe Seeing the Massification of the Doctorate? was the title of a recent article (February 2, 2023) in Times Higher Education (THE). Among other issues, this article zoomed in on the German news that some *Fachhochschulen* (universities of applied sciences, UAS) have been granted the right to educate and train doctoral candidates and award doctoral degrees despite considerable protests from universities, which used to have the exclusive right to award doctoral degrees.

UASs, providing mostly professional higher education (in contrast to “academic” higher education), were established in Germany in the early 1970s, mainly as an alternative to traditional universities. UAS faculty, including professors, were not expected to carry out research, had a higher teaching load than professors at universities, and were required to have at least five years of professional experience outside academia. However, these experiences often led to a more intensive cooperation with industry, from which emerged applied research. In recent years, ministers of education and research in some German states decided to grant the right to award doctorates to some UASs—provided they could prove that they were what is commonly called “research-intensive,” at least for some programs or departments. UASs had to submit their respective research portfolios. They were then evaluated by an independent body that gave a recommendation on whether to grant the right to award doctoral degrees or not.

However, this is not the whole story. The growth of doctorates in Germany was influenced by at least two other developments and started from an already traditionally high output.

Doctorates as Part of Chair Infrastructure

An important explanation of the traditionally high output of completed doctorates in Germany is the fact that having at least one but often two or even more doctoral positions is part of the infrastructure of each professorial chair. In German higher education, doctoral candidates are not called students but doctoral candidates or early career researchers because the majority (about 60 percent) have a junior academic staff position linked to a professorial chair. Furthermore, it is the rule that most externally funded research projects include one or more doctoral positions as well to carry out the actual research. Thus, professors who are reasonably successful in attracting research funding have additional positions for doctoral candidates. Furthermore, there are at least 10 major foundations plus the German Research Association (DFG) that provide individual doctoral scholarships or fund graduate schools with five to 12 doctoral scholarships (accounting for another 20 to 25 percent of funding for doctoral candidates).

Doctorates as Part of the Excellence Initiative

The German Excellence Initiative (2005–2019) was another factor contributing to the growth of doctorates in Germany. In the first two rounds (2005–2012) and the third round (2012–2017), altogether 85 graduate schools were established and funded. In the first two rounds, the funding amounted to one million euros per year for the total period of five years, and in the third round the funding varied between one million and 2.5 million euros per year for the period of five years. In addition, there was a funded transition phase (2017 to 2019). Each of these graduate schools had scholarships for six to 12 or six to 15 doctoral candidates, most of whom successfully completed their doctoral degree within three to five years. The growth in doctorates at German higher education institutions can be seen in detail in the statistics of the German Federal Office of Statistics. Since 2000, between 25,000 and 26,000 doctorates have been awarded annually. The largest

effect of the graduate schools supported by the Excellence Initiative could be seen in 2015—the year when almost 30,000 doctorates (29,218) were awarded.

Doctorates Awarded by Universities of Applied Sciences

The third factor that was emphasized in the *THE* article, namely doctoral degree awarded by UASs, is not—at least not yet—a factor leading to significant further growth in doctorates in Germany. It is necessary to keep in mind that UASs are only allowed to award doctoral degrees in some of the German states, and that this right was not granted to the institutions as a whole but only to a limited number of their research-intensive departments. The right to award doctoral degrees is granted only when certain conditions are fulfilled and is temporary. Every few years, an evaluation is carried out by an independent body to assess whether the right to award a doctoral degree should be extended or not. A look at the annual statistics of the German Federal Office of Statistics shows that so far, only one UAS awarded one single doctoral degree in 2021.

However, another development should be pointed out here. Since 2010, so-called cooperative doctoral education and training procedures have been established successively in all German states. In the framework of a cooperative doctorate, a university professor and a professor from a UAS cooperate closely on guiding and supervising graduates with UAS degrees. Before that, UAS graduates were not even allowed to embark on post-graduate programs without additional course work at a university after their graduation from a UAS. In such an arrangement, it is the university that awards the degree in the end. Every three years, the German Rectors' Conference carries out a representative survey to gather figures about cooperative doctorates, and the latest available survey results show a continuous rise from 109 cooperative doctorates in 1997–1999 to 1,575 in 2015–2017. However, given the fact that German universities award between 25,000 and almost 30,000 doctoral degrees annually, this figure cannot explain the growth of doctorates in German higher education. In the meantime, though, the Max Planck Institutes, nonuniversity basic research institutes, are also clamoring for the right to award doctoral degrees, arguing that their own research training is even better than that at universities. In the future, they might be successful with their claim, which will erode the university monopoly on awarding doctoral degrees even further.

Conclusions

Two main conclusions can be drawn from what has been said so far. First, the main factor behind the growth of doctorates in Germany has been the Excellence Initiative, though one should keep in mind that the output in terms of completed doctorates had been relatively high in Germany already for quite a while before this initiative was launched. In contrast to this, doctoral degrees awarded by UASs do not yet play any role in terms of figures. Second, the traditional monopoly of German universities to have the exclusive right to award doctoral degrees is slowly eroding despite their opposition. But it can be assumed that this erosion will continue as German higher education policy makers generally share the view that there should be many pathways to a doctoral degree.

If it is possible at all to speak about a “massification” of doctoral education and training in German higher education, the result is a diversification of doctoral degree types, e.g., research doctorate, professional doctorate, PhD by published work, cooperative doctorate, industrial doctorate—just to name a few. As often happens with massification, there is a need to structure existing options—either through vertical stratification (by reputation and rankings) or through horizontal diversification (by types of degrees). Despite the fact that the German Excellence Initiative was the first attempt to structure through vertical stratification, German tradition still gravitates toward horizontal diversification by types of degrees and types of institutions. ▲

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