

Episode 36 – Graduate Degrees Around the World

Welcome to Grad-post! I'm your host, Brian S. Mitchell and we're here to talk about life before, during, and after graduate school, and whether an advanced degree is right for you. I'll draw upon my experiences as a graduate dean and research mentor, as well as my network of students, colleagues, and experts to bring you the most complete information on graduate education that I can.

Today's episode isn't quite a simulcast, but it's close. It's like listening to your Taylor Swift tunes while your Swiftie friends are at the concert. That's right – I compared myself to Taylor Swift. It turns out that almost to the minute that this episode drops I'll be presenting at the German Academic Exchange Service's 100th Year celebration in New York City. It's not a Taylor Swift concert, but what is? The session I'm presenting at is on "The Futures of Higher Education," along with some fantastic speakers from around the country. I'll be talking about how globalization and internationalization efforts have influenced graduate degree enrollment and production, with a focus on the last twenty-five years. Given the blitzkrieg of changes to higher education and immigration policy in the past few months, and just the overall air of anti-intellectualism, I thought I'd summarize some of the salient points from my talk and present them to you in this podcast. There are implications to both thought and action.

Let's start with a 30,000 foot view of global graduate and postgraduate education as it stands today. Then, we'll take a look back at how we got here and end with a look forward. Spoiler alert! It doesn't end well.

Quick quiz! Which country awards the most master's degrees per year? Well, it depends on where you get your numbers. According to findamasters.com, Germany awarded over 1.1 million master's degrees in 2022, followed by France at 1 million, Italy at 807,000, and China at 780,000. The data for Europe come from [Eurostat, who tracks “master's or equivalent” degrees](#), so that number for Germany will be inflated since it probably also includes their “Diploma” degree which is equivalent to a master's. More on that in a moment. The [Organisation for Economic Co-operation and Development \(OECD\) data for 2022](#) paints a different picture, however, with France awarding only 351,000 master's degrees, Italy at 198,000 and Germany only 222,000. Those numbers are more in line with what you can find from the individual governmental reporting agencies. For example, the Statistisches Bundesamt – the official reporting statistics agency for higher education in Germany – reports [a little over 163,000 master's degrees in 2022](#). If you then go to the Chinese Ministry of Education (MOE) website, they report [a little under 780,00 master's degrees awarded for 2022](#). In the United States, the now-shuttered National Center for Educational Statistics (NCES) [reports 880,000 master's degrees in 2022](#). Some of these discrepancies have to do with how a master's degree is defined in different contexts, but it's pretty clear that the United States and China are the leaders at around 800-900,000 master's degrees awarded per year. We'll come back to that factoid at the end of the episode.

At the doctoral level, the United States is the clear leader amongst OECD countries at 79,000 awarded in 2022. According to NCES, that number is more like 204,000 if you include all doctorate degrees like professional doctorates (MD) and education doctorates (EdD). If you limit the discussion to research doctorates (PhD), that number is 58,000 in 2022 according to NCSES from the National Science Foundation. MOE reports nearly 82,000 doctorate degrees awarded in China in 2022. [Worldpopulationreview](#) also puts the United States and China far ahead of other countries in the number of doctoral graduates, with India, Germany, UK, Russia, and Brazil next but far behind.

You could do a similar analysis for enrollment and go back as far as the statistics allow to get a longitudinal view of postgraduate enrollments and degrees awarded in most countries around the world. I've done that for some selected countries and there are some interesting results I want to share. I'll highlight three of them here.

First, graduate education is truly an international endeavor that has benefited from globalization efforts. In the United States, the percentage of research doctorates awarded to international students – defined here by their non-resident visa status – is a little under 40%. For master's degrees recipients that number is a little under 20% awarded to international students. Germany is more consistent with about 20% of both master's and doctorate degrees going to non-citizens. The data for China are a bit less granular at the degree level, but [one source](#) puts the percentage of international master's students enrolled at only 2.5% and 6.6% for doctoral enrollment in 2018. In all instances except for master's degrees in Germany, the percentage of international students receiving advanced degrees has more or less increased linearly over the past two decades, with the absolute numbers of international students getting master's degrees also increasing in Germany. The reason the percentage of international master's degrees in Germany has dropped is because German nationals have been transitioning from what is called a "one cycle" master's degree to a "two cycle" bachelor's then master's degree as we have it here in the United States. This transition is the result of the [Bologna Process](#) in which the EU partners agreed to standardize the two cycle model of a three year bachelor's degree followed by a master's degree to allow for easier movement between EU institutions of higher education.

Despite the overall increase in mobility between countries for advanced degrees, there are some interesting effects of short-term events on the international graduate student population, which is our second topic. If you look at the percentage of research doctorate degrees awarded to international students in the United States since 2000, there are three multi-year periods of decline, despite the general increase over the past 25 years. The first decline started in 2007, when the percentage dropped from 38.7% international to 34.2% by 2010. Not a huge decline, but it is noticeable. Keep in mind that there is a time-lag in doctoral education of about 6 years from when students enroll to when they get their degrees. So, what happened six years prior to 2007 in 2001? That's right – 9/11. There was not only a shift in immigration policy with limitations on visas issued students from certain countries, but an overall anti-immigrant sentiment that dissuaded international students from coming to the United States.

The increase of international students coming for advanced degrees eventually resumed but would not recover to 39% - its peak in 2007 - until 2021. The next dip in international doctoral degrees came in 2014 and lasted until 2017. What happened six years earlier? Right again – the global financial crisis of 2008. Not only did the bottom drop out of the U.S. housing market, but financial institutions around the world were affected. People lost their jobs, and many countries entered one of the deepest recessions since the Great Depression. Mobility was limited and prospective students couldn't travel to foreign countries for their degrees. Plus, without knowing how long the recession would last, international students couldn't be assured that there would be a job waiting for them when they finished their degrees. Recovery resumed as the financial crisis eased, and 2017 through 2021 saw a period of sustained mobility and growth in the percentage of international doctorates awarded in the US, rising to slightly above the highs of 2007 to 38.9%.

We then entered three straight years of decline starting in 2021 until today when statistics are only currently available for degrees granted in 2023. The current decline has been more modest so far – less than 1% - and the cause harder to pin down. Global economic conditions were generally good in the mid-2010s, and the effects of the Global Pandemic will not appear in these statistics until 2026 or so. But my research tells me that if immigration policy negatively impacted international students coming to the United States to study in the early 2000's, then the first Trump administration starting in 2016 is at least partly the cause of the current downturn. What does the future hold? Once the effects of the Global Pandemic start to hit and the anti-immigration on steroids impacts of Trump 2.0 take hold, expect to see a precipitous drop in the

percentage of advanced degrees in the United States going to non-residents. That doesn't mean more degrees will be awarded to U.S. citizens as some may want, just fewer overall will be awarded.

This prediction isn't just Trump-bashing. A leading indicator of student interest in studying in another country is online keyword searches like "Study in [Destination Country]". [ApplyBoard.com](https://applyboard.com) tracks such data, and Canada presents an interesting case study on the effects of immigration policy on international student interest. Trends for 2025 show a drop of average monthly search from 28,600 to 13,600 for "Study in Canada" from 2022 through today. Why? Because Canada has capped the number of international students allowed to enter the country for several years in a row now. [ApplyBoard](https://applyboard.com) also shows Canada with the largest negative sentiment about studying in the so-called "Big Four" English-speaking destinations at 19.1% compared to the US, UK, and Australia, that are all at about 10% negative sentiment. News travels fast.

These projections on the effects of policy and global events on researcher mobility bring us to the final topic. Where could this all lead? It's hard to say and my standard disclaimer is that I don't have a crystal ball. But I do see the conditions becoming increasingly favorable for a seismic shift in post-graduate education. If you look at the rate of growth in both master's and doctorate degrees awarded by country, China has the fastest growth rate by far. It went screaming past the United States in research doctorate production in 2017, and is on pace to surpass the US in master's degree production in the next year or so, if it hasn't already. These growth rates are the result of a concerted effort by the Chinese government to build research and higher education infrastructure. Instead of going to the United States for advanced degrees, Chinese students are staying home. What's more, students from countries in the region are now seeing China as an economical place to get an advanced degree.

The final piece of this puzzle comes in terms of online study, or what is sometimes called distance education. The statistics here get a little harder to glean, but data from the doomed U.S. Department of Education shows that the percentage of graduate students enrolled in distance education courses currently stands at over 50%. Now, there's a lot to unpack with that statistic. First of all, the Global Pandemic saw a big bump in online instruction in 2020 that recovered somewhat in 2021, but still left us at a higher percentage of graduate students taking distance education courses than before the pandemic. That statistic also includes graduate students taking ANY distance education course, even if it is one course in a curriculum that is otherwise predominantly in-person. So, this is not the same as saying half the advanced degrees are online. That percentage is still relatively small, at about 10-20% depending on degree level, major, and a bunch of other factors. But, the percentage is growing. The access the rest of the world has to distance education is also growing. According to ourworlddata.org, the share of the population using the internet is almost saturated in North America, Europe, and Central Asia, with the rest of the world growing at an enormous rate. South Asia has the fastest growth rate and just passed 40% of the population using the internet, with Sub-Saharan Africa nearing 40% and East Asia well past 80%. Where are the large population centers of the world? Africa and East Asia. As those regions reach internet usage saturation, their populations will have a need for affordable, reliable access to higher education and eventually advanced degrees.

Who will step in to fill this need and take advantage of this opportunity? Any government or private investor that is so inclined. Is that the United States? Not very likely in the current environment. Is it one of those adorable brologarchs who insert themselves and their limitless amounts of money anywhere they want? Maybe. Is that China? Highly likely. Will it specifically turn doctoral education into an outsourced online endeavor? Not as likely, either, given the mentorship model of the PhD, but it could impact the EdD. More likely is that master's education will be affected, where online degrees are more easily obtained. So, here's my scenario:

In the next ten years, China will corner the market of online master's education and offer affordable – even free – degrees to anyone who wants one in some or all disciplines using jettisoned instructional talent from around the world.

That instruction will likely be in English but given the advent of AI-enabled instruction it probably won't matter. The impact of lost revenue from these traditionally revenue-generating programs on traditional master's education in the "Big Four" English-speaking countries will finish off what anti-immigration movements, financial markets, and global pandemics have already started.

Thank you for joining me today. All of the links provided in my podcasts can be found in the transcript available at grad-post.com. There, you'll find additional information and resources to help you plan your adventure for an advanced degree.

I always close with "every degree counts." While I still believe that, will it include a free online master's degree from China? We shall see.

Links

https://ec.europa.eu/eurostat/databrowser/view/educ_uae_enrt01_custom_12109691/default/table?lang=en
<https://www.findamasters.com/blog/11522/how-common-is-a-masters-degree>
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