

Episode 14: The Rise of R2-DII

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.

In honor of the Summer Workshop and New Dean's Institute being held in Boston this week by the Council of Graduate Schools, I thought I'd devote this podcast to the graduate education administrators and researchers out there. I haven't forgotten about you, friends and colleagues! If you are a current or prospective graduate student wanting more information on how to get into and excel at graduate school – hold tight. There's lots more coming this fall as we get into a new grad school admissions cycle. In the meantime, there is relevant information for you today as you consider your next academic career move.

Today we're focusing on graduate education in the United States and to some extent other higher education systems around the world by inference, specifically the rise of mid-tier colleges and universities in master's and doctoral education. Let's use 2005 as a temporal reference point. It's coming up on two decades of change since then, and we will see that it was the year an influential classification scheme made significant changes to their categorization of academic institutions that are still mostly intact today.

According to the [National Center for Education Statistics \(NCES\) IPEDS data](#), there were some 575,000 master's degrees and over 43,000 research doctorates awarded in our reference year of 2005. If you include the so-called “professional doctorates” – or as I prefer to call them in Episode 7 “practice-based” doctorates - that number balloons to over 138,000 doctorates awarded in 2005. That number grew to over 200,000 doctorates awarded in 2022 – the last year for which we have statistics – of which 57,596 were research doctorates, the latter representing a 32% growth over 2005. Meanwhile, the number of master's degrees awarded rose to an astounding 880,000 – a 53% increase over 2005.

OK. That's a lot of numbers. The point is that graduate education has grown a lot in the last 15-20 years. So has undergraduate enrollment and degrees, and there's no guarantee that this growth is sustainable in the face of declining college enrollments and shuttered colleges, but let's look at what drove the growth over these years. It's easiest to discuss the research doctorate as a proxy for this growth because it's a key component of the most well-known of the university classification schemes. No, I'm not talking about *US News and World Report*, *Forbes*, or any other for-profit ranking system. I'm talking about classification schemes – how universities are grouped together by academic mission. The most widely-used of these classification schemes is the [Carnegie Classification system](#). There are several different flavors of Carnegie classification, but we're going to concentrate on the Basic Classification which is the most widely cited.

Without getting too wonky about the convoluted Carnegie Basic Classification scheme and how it's changed over the years, it's important to note how this terminology came about and why its use is so common. When the classification scheme was first developed in the 1970's, universities were divided into two categories according to the level of federal research funding they received: Research I (R1) for the top 50 institutions receiving federal research funding as long as they awarded at least 50 PhDs in the previous year; and Research II (R2) for the next 50 institutions by federal research funding dollars again as long as they awarded 50 PhDs. We won't go into why this classification scheme was developed nor the intermediate changes in the intervening years as institutions complained about the exclusionary nature of the criteria, but since 2005, the two top categories of institutions based on research activity are now called “Very High Research Activity” and “High Research Activity.” There is a third category of “Other Doctoral” institutions who grant doctorates. The criteria for these categories have changed – the most notable for this discussion being the minimum number of research doctorates granted has been reduced to 20 - but the academic community continues to refer to the top categories as “R1” and “R2,” respectively. The classification scheme has been tweaked over the past two decades and there are continued calls for further revision, but these two top categories in research funding have continued to dominate the psyche of presidents, provosts, and deans so these are the two categories we'll examine. To be sure, the top R1 institutions back in the 70's are pretty much the same as the top Very High Research Activity institutions of today, but it's the move up and into these categories that I want to examine today. Time for more statistics. But first, a soothing musical interlude.

[Music playing...]

Where were we. Oh, yah. A historical view of Carnegie Basic Classifications. In 2005, there were 96 R1, 103 R2 institutions, and 125 Other Doctoral institutions, for a total of 323 classified institutions. By 2015, there were 115, 107, and 101 institutions in those categories, respectively, for exactly the same total of 323. Nevertheless, you can start to see the move up from R2 to R1 and Other Doctoral to R2. Today, in 2024, there are 146 R1, 133 R2, and a whopping 187 Other Doctoral institutions for a total of 466 categorized institutions - an overall increase of 44% over 2005. That's also an increase of 52% in R1 institutions over the last two decades, while the R2 category has increased 30%. Interestingly, the ballooning third category - so-called "Doctoral/Professional Universities", has increased 85% in just ten years. So, although the focus here is on those R2s that moved into the R1 category, the overall number of institutions granting specifically doctoral degrees has increased dramatically in the past twenty years.

Who are these institutions? I talked a little bit about this in Episode 7. Most of the research doctorates come from the usual suspects. But there are a few outliers, like Walden University, which awards a large number of education and psychology practice-based doctorates that until recently were classified as research doctorates. But Walden is not an R1. It's not even an R2. It's the largest producer of doctorates in the "Other Doctoral" Carnegie category. Why - because of the federal research funding criteria that we haven't talked about yet. Nor will we. That's because with the exception of a few online outliers, research doctorate production tracks more-or-less linearly with federal research dollars. Why? Because in many disciplines the stipends for graduate students pursuing advanced degrees come from federal research dollars. So, by and large, the R1 category is dominated by the research powerhouse institutions. But the distribution is not symmetric. More statistics to demonstrate my point.

In 2005, when those 43,000+ research doctorates were awarded, there were 413 doctorate-granting institutions producing an average of 105 doctorates each according to the National Science Foundation's [2022 Survey of Earned Doctorates](#). Bunny hop forward to 2022, and there were 457 doctorate-granting institutions producing an average of 126 doctorates each. You might think that the big doctorate producers just got bigger. But as usual - statistics can be tricky. If you look at the **median** doctorate production over those same years, **it's exactly the same at 42 doctorates per institution**. We look at the median for several reasons. Just like with income levels, averages can be skewed by the big boys. And with income, I really do mean boys, like Warren Buffet, Jeff Bezos, and Bill Gates. Their incomes jack up the average but don't really affect the median income that much. It's the same with doctoral production statistics. The Michigans, Berkeleys and Harvards of the world continue to crank out more and more PhDs. But to maintain the median, you need to have the increase above the middle - the rise of the R2s - offset by growth at the lower end of the distribution - the "Other Doctorate" institutions, or what I'll call the DIIs. Why DII? Because many of these schools offer NCAA Division II athletics. Actually, it's both Division II and III, as well as the schools that don't offer athletics at all, but then I don't get a clever podcast title to get more Google hits. So, let's call these institutions the DII group, as opposed to the majority of research doctorate schools that offer NCAA Division I athletics - think football bowl games and March Madness. Those institutions have always been on the Carnegie research activity list. It's the smaller schools that are contributing to the growth in number of institutions in the Carnegie categories.

Of the 50 institutions that jumped from R2 in 2005 to R1 in 2021, **ALL BUT THREE** offer NCAA Division I athletics according to the [current NCAA website directory](#) (some schools have changed divisions since 2005, but the numbers are small). Not all of them offer football, but they are Division I in the sports they offer. Similarly, of the 81 institutions that rose to R2 status in 2021 from 2005, the majority - 55 - were still Division I athletics schools. But in the "Other Doctoral" category, of the 154 that were not on the list in 2005 but were in 2021, **three-quarters of them were non-Division I schools**, the DII, DIII and other (like NAIA athletics or online schools) institutions.

So, what drives these institutions to rise in the Carnegie classifications? As always, it's about money. It's also about prestige and rankings, but that's ultimately about money, too. It all starts at the top. If you were to be a fly on the wall for all the interviews conducted for university presidents and provosts over the past two decades, you'd have heard one common refrain from all the candidates: "This institution needs to become an R1." But even achieving R2 status is a big deal for many of these institutions. A quick search turns up numerous university press releases, like [this one from Chapman University](#), a Division III athletics institution on achieving R2 status:

“This is a significant recognition and an exciting accomplishment for Chapman. It speaks volumes to the accomplishments of our faculty – whose research activity has soared in the past several years – and the growing size and reputation of our doctoral programs,” said Chapman Provost Glenn Pfeiffer.

Or [this from Augusta University](#), an NCAA Division II school:

Dr. Jennifer Sullivan, the dean of [The Graduate School](#), said the 2021 “high research activity” classification proves Augusta University is a national leader in research with plans to continue to grow and expand. “The importance of the classification is obviously linked to the prestige of the university, and we have aspirations, as many institutions have aspirations, to be an R1 level institution, which is the most coveted designation,” Sullivan said.

Or this from Palm Beach Atlantic, a Division II school, about their new [Provost and Chief Academic Officer, Carter Baldwin](#):

“He also served as Interim Provost where he advanced the mission by collaboratively securing the university’s Carnegie R2 status...”

Achieving R2 status is also important to Division I Historically Black Colleges and Universities (HBCUs) like [Prairie View A&M](#), and institutions without NCAA athletics like [New York Institute of Technology](#).

But achieving R2 status isn’t enough. There’s always R1. Here’s a quote from a publicly available [Michigan Tech internal report](#) about supporting undergraduate research at their Division II school:

“Successful completion of these more ambitious goals will have a dramatic impact on student learning ... and would contribute to our Carnegie Classification from R2 to R1.”

Perhaps the importance of the Carnegie classifications is best summarized by this [quote from John Kantner, associate provost of faculty and research and interim dean of the Graduate School](#) at the University of North Florida:

“We’re now having some conversations about what type of R2 university we want to be. Do we need to bring in more doctoral programs? Do we perhaps focus on professional doctorates that do dissertations?”

The issue of whether practice-based doctorates should have dissertations aside, the relevant question is how you fund more doctoral programs. While that topic is beyond today’s focus, I can tell you that it is often accomplished through the growth of tuition-based master’s programs, hence the explosion in master’s enrollments. But I can also tell you anecdotally that some schools who invested a lot of money from whatever source in research infrastructure and standing up new doctoral programs as a way to move up in the Carnegie classifications are now wondering how to sustain that growth. More on that as I get some of you to give me some juicy quotes. But in much the same way that college athletics costs money - there’s [only a handful of schools that actually make money at it](#) – research and doctoral education cost money. Lots of it.

Why am I drawing this analogy between doctoral production and intercollegiate athletics? The choice seems antithetical – colleges sports have been the bane of college faculty everywhere. They see athletics as siphoning off money that they could otherwise use for themselves. And athletics donors are often alums who care more about extracurricular activities than what is taught in the classroom. But there are lessons to be learned from what has occurred in college athletics. Those of us in the United States know that the face of college athletics has changed dramatically in the last few years. Gone are the days of watching your alma mater’s teams evolve from a recruiting class of freshmen to vying for a national championship four years later with the same team. Now, you need an Apple AirTag to keep track of a player from season to season. College athletes can now be paid, and the Name-Image-Likeness (NIL), transfer portal, and conference realignment phenomena have transformed college athletics in irreversible ways. I don’t have a crystal ball, but as graduate education administrators and researchers, some of these “free agent” characteristics will be coming to a graduate school near you. Just look at what is happening to the [Big Ten Academic Alliance](#), formerly the [Committee on Institutional Cooperation \(CIC\)](#). As the Big Ten conference expanded its athletic memberships, so did the academic alliance.

Change is afoot. Not only are conferences re-aligning their athletics and academic programs, but there are changes suggested to the [Carnegie classifications themselves](#). These moving targets will keep athletic directors and graduate deans alike chasing metrics that make their institutions stand out from the crowd. Whether those changes are bad or good, or a little bit of both, remains to be seen.

Either way, just as it is for individuals, it is true for institutions as well: every degree counts.

Thank you for joining me today. All of the links referred to in this podcast are available on my website at grad-post.com.

Enjoy the CGS Summer Workshop! I'll be taking a break for the rest of the summer and come back in September for the start of a new semester with a new lineup of podcasts to help you plan your adventure for an advanced degree.

Links

<https://nces.ed.gov/ipeds/survey-components/7>

<https://carnegieclassifications.acenet.edu/carnegie-classification/classification-methodology/basic-classification/>

<https://ncses.nsf.gov/pubs/nsf24300/data-tables>

<https://www.ncaa.org/index.aspx>

<https://news.chapman.edu/2019/01/16/chapman-achieves-milestone-with-r-2-carnegie-classification/>

<https://jagwire.augusta.edu/augusta-university-receives-high-research-activity-ranking-from-carnegie-classification/>

https://www.augusta.edu/mcg/phy/faculty/phys_faculty_sullivan.php

<https://www.augusta.edu/gradschool/>

<https://carterbaldwin.com/news/18462/>

<https://www.pvamu.edu/blog/pvamu-achieves-prestigious-carnegie-r2-classification/>

https://www.nyit.edu/news/features/meet_jared_littman_vice_provost_for_research

<https://www.mtu.edu/research/vpr-office/internal-awards/faculty-fellow/docs/faculty-fellow-report-oliveira.pdf>

<https://www.unf.edu/newsroom/2022/02/R2-status-explained.html>

<https://www.forbes.com/sites/donnalopiano/2024/02/18/higher-education-leaders-are-asleep-at-the-wheel/>

<https://btaa.org/about>

https://en.wikipedia.org/wiki/Big_Ten_Academic_Alliance

<https://www.acenet.edu/News-Room/Pages/Carnegie-Classifications-to-Make-Major-Changes.aspx>