

RESEARCH BRIEF



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FINANCIAL AID TRENDS FOR GRADUATE DEGREE RECIPIENTS: HOW MUCH DO THEY OWE?

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SUMMARY

For this brief, we examined the indebtedness of the graduate degree recipients in the cohort years of 2017-18 to 2022-23. We compared student indebtedness between schools across six academic years on two measures of indebtedness: Sum of loans paid for a particular degree, and the ratio of loans to all aid paid for that degree. We show that master’s graduate aid is largely loan-based but the debt load has been stable at about \$25,000 over their two-year career for the past six years. However, for doctoral graduates, loan aid is becoming a larger part of their total aid package.

DATA

In this analysis, we use all graduate records from the Graduate School for a given academic year (Summer/Fall/Spring) regardless of when they enrolled. We only counted one degree per student. The data were drawn from the Student Data Mart (SDM) Completion file. Table 1 shows the graduate count (not number of degrees). The column labeled ‘Total Obs’ is congruent to the college counts found on the [Degrees/Completions dashboard](#) of our website. This table also shows the count of those graduates that had any aid and the count of those that had loan aid. Our focus is on those that had loan aid, and several colleges had fewer than five graduates in a year with loans. Therefore, we only report doctoral results for colleges that had five or more graduates with loans for all years shown. Still, small cell sizes for the colleges that we do report can have yearly variability that is influenced by outliers. In this study, we will emphasize trends across years rather than fluctuations between succeeding years.

TABLE 1: COUNTS OF GRADUATES WITHIN COLLEGES SHOWING TOTAL NUMBER OF GRADUATES PER YEAR, THE NUMBER THAT HAD ANY AID, AND THE NUMBER THAT HAD LOAN AID

Degree Level	Unit	2017-2018			2018-2019			2019-2020			2020-2021			2021-2022			2022-2023		
		Total Obs	Had Aid	Had Loan	Total Obs	Had Aid	Had Loan	Total Obs	Had Aid	Had Loan	Total Obs	Had Aid	Had Loan	Total Obs	Had Aid	Had Loan	Total Obs	Had Aid	Had Loan
Doctoral	School of Nursing (Professional)	39	28	22	77	68	56	86	72	58	83	68	49	63	42	28	67	44	28
	School of Nursing (Research)	7	7	2	7	6	2	15	11	6	6	5	3	8	4	2	6	4	1
	College Visual/Performing Arts	17	16	10	13	13	6	19	16	4	10	8	4	23	20	9	12	7	1
	College of Arts and Sciences	35	33	18	26	21	5	30	28	5	23	22	5	32	32	10	33	30	10
	Health and Human Sciences	19	15	6	37	29	17	32	25	13	34	24	11	37	32	16	51	36	17
	Joint Sch of Nanosci/Nanoeng	2	2	0	10	9	3	8	6	0	9	8	1	9	9	1	11	10	2
	Sch of Business and Economics	11	10	5	5	5	2	5	5	1	8	8	2	10	10	1	6	4	1
	School of Education	34	26	11	47	34	15	47	36	23	31	27	15	42	32	25	39	27	19
Master's	School of Nursing	17	12	7	23	9	9	29	14	8	32	16	12	15	7	6	21	7	6
	College Visual/Performing Arts	70	60	35	59	49	27	59	44	23	69	45	36	76	25	17	55	10	9
	College of Arts and Sciences	135	115	75	157	135	67	125	101	45	139	100	52	131	64	39	185	55	41
	Health and Human Sciences	187	168	133	170	152	126	175	151	114	197	161	129	186	91	81	196	82	65
	Interdisciplinary	30	21	20	52	28	27	29	19	19	59	30	24	61	20	19	27	9	7
	Joint Sch of Nanosci/Nanoeng	1	1	0	0	0	0	7	5	4	4	0	0	2	0	0	6	2	0
	Sch of Business and Economics	127	76	50	144	89	55	173	98	73	160	63	46	179	58	55	247	63	54
	School of Education	236	164	140	246	181	127	294	221	148	229	138	117	259	110	76	277	85	66

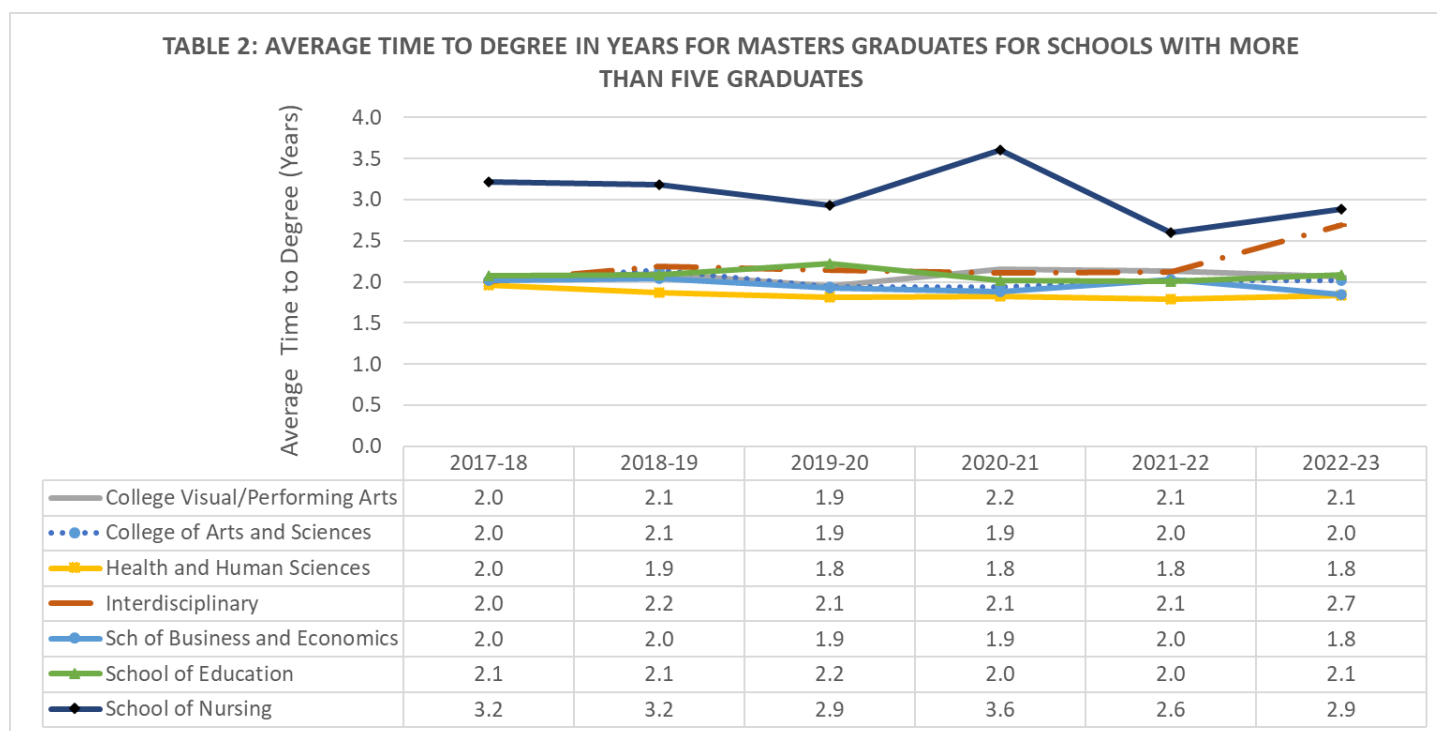
Noteworthy in Table 1 is the drop in the number of master’s graduates needing aid in Visual and Performing Arts, Health and Human Sciences, and Education (shown in red in Table 1). Even if later results show that graduates in these colleges have increasing debt in later years, the number of graduates in debt is actually smaller than in the past. Of special note is the separation of Nursing doctoral programs in this study. The School of Nursing offers both PhD (labeled ‘Research’ in this study) and DNP programs (Doctor of Professional Nursing –labeled ‘Professional’ in this study). The DNP program has a 4-year post-Bachelor’s option and what appears to be a popular 2-year post-master’s option. Separating these programs was necessary to account for the large time-to-degree differences that exist between the two.

METHODOLOGY

We matched financial aid data from BANNER to these graduate records. We kept only those records for academic years between the degree matriculation date as reported in the SDM Completions file and the graduation date. These data were aggregated and are described below. Results are shown for master’s and doctoral graduates separately as master’s programs generally take less time to complete so the amount of aid for those programs should be, on average, lower than for doctoral degrees.

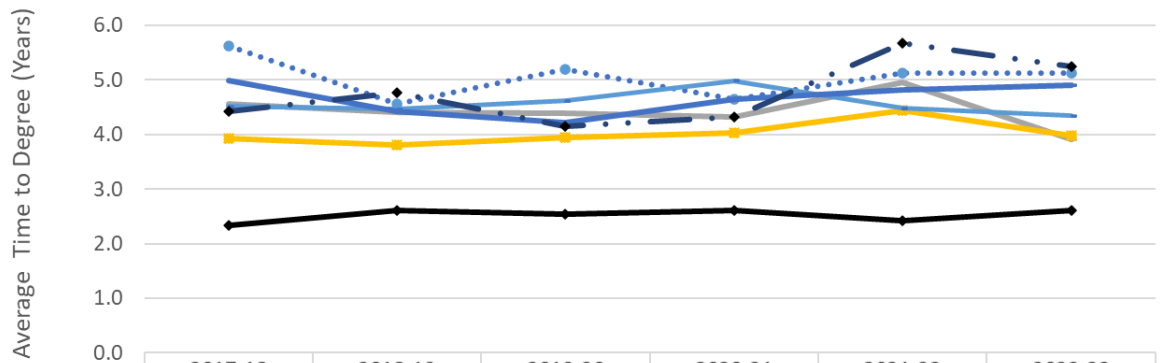
RESULTS

TIME TO DEGREE We did not distinguish between full- and part-time students, intending to reflect that distinction through the aggregated time to degree. Tables 2 and 3 show that time to degree for master’s graduates, and the Nursing DNP program, is about one-half of that of doctoral-research graduates (across all six years, 2.0 vs 4.6 years). Therefore, we might expect master’s graduates’ (and DNP graduates) debt load to be about half that of doctoral-research graduates. For master’s graduates, the time to degree for most graduates did not change appreciably from 2017 to 2021. This would suggest that the ratio of full- to part-time students remained roughly the same across time. The exceptions are the Interdisciplinary and Nursing graduates. A large proportion of the Nursing master’s graduates are MSN/MBA students. This program is largely part-time. Additionally, there is a recently introduced Health Management MSN/MBA that is administered as an Interdisciplinary program. This likely explains both the higher average time to degree for Nursing and the sudden rise in time to degree for the Interdisciplinary graduates.



In Table 3, showing the average time to degree for our doctoral graduates, there is evidence of greater yearly variability between colleges. However, across the last six years, the trend has been relatively consistent within each college. The notable exceptions are the nursing PhD programs. The time to degree for the Nursing research PhD has increased from 4.4 years in 2017-18 to over five years in 2022-23. The two-and-a-half year average for the Nursing professional DNP program likely reflects the popularity of the post-master's two-year program option.

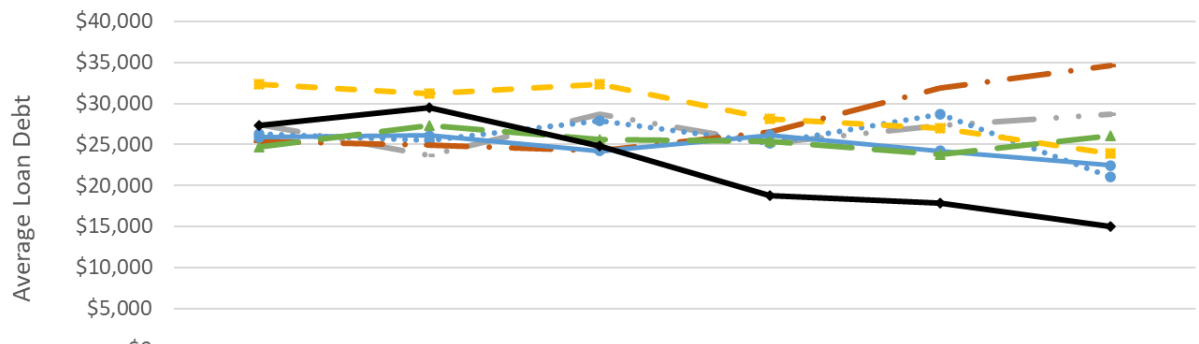
TABLE 3: AVERAGE TIME TO DEGREE IN YEARS FOR DOCTORAL GRADUATES FOR SCHOOLS WITH MORE THAN FIVE GRADUATES



	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
College Visual/Performing Arts	4.6	4.4	4.4	4.3	4.9	3.9
College of Arts and Sciences	5.6	4.6	5.2	4.6	5.1	5.1
Health and Human Sciences	3.9	3.8	4.0	4.0	4.4	4.0
School of Nursing (Professional)	2.3	2.6	2.5	2.6	2.4	2.6
Sch of Business and Economics	4.5	4.5	4.6	5.0	4.5	4.3
School of Education	5.0	4.4	4.2	4.7	4.8	4.9
School of Nursing (Research)	4.4	4.8	4.1	4.3	5.7	5.2

LOAN DEBT: MASTER'S DEGREES Table 4 shows the average amount of loan debt for colleges that have more than five graduates in all academic years shown. Across these years, Health and Human Sciences and Nursing master's graduates have reduced their average final loan debt by roughly \$10,000 from 2017-18 to 2022-23; Arts and Sciences graduates by about \$5,000. Nursing master's graduates average loan debt dropped from a high of about \$30,000 (2018-19) to about \$15,000 in 2022-23.

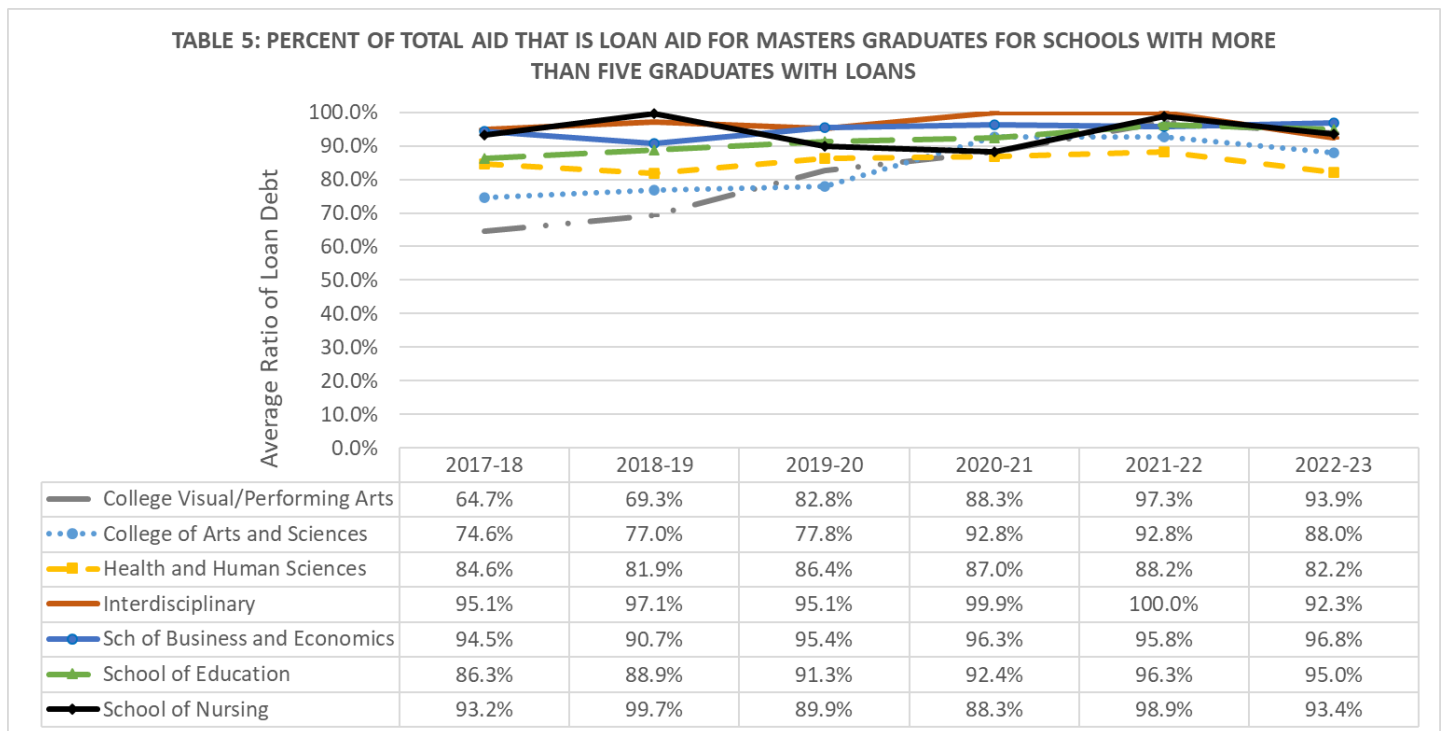
TABLE 4: AVERAGE LOAN DEBT FOR MASTERS GRADUATES FOR SCHOOLS WITH MORE THAN FIVE GRADUATES WITH LOANS



	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
College Visual/Performing Arts	\$27,400	\$23,715	\$28,731	\$25,206	\$27,342 *	\$28,686
College of Arts and Sciences	\$26,256	\$25,490	\$27,935	\$25,180	\$28,700	\$21,026
Health and Human Sciences	\$32,327	\$31,231	\$32,392	\$28,096	\$26,939	\$23,955
Interdisciplinary	\$25,351	\$24,907	\$24,237	\$26,515	\$31,937	\$34,620
Sch of Business and Economics	\$25,893	\$26,112	\$24,213	\$26,155	\$24,217	\$22,468
School of Education	\$24,665	\$27,325	\$25,624	\$25,382	\$23,836	\$26,109
School of Nursing	\$27,379	\$29,485	\$24,801	\$18,777	\$17,898	\$15,013

Of note is the 2021-22 average loan debt value for Visual and Performing Arts (\$27,342)*. For an unknown reason, Dance students' average loans plummeted in 2021-22 (around \$12,000) but returned to its pre-2021-22 average in 2022-23. This outlier was removed, leading to a more reasonable and consistent average for the college. The Interdisciplinary graduates show a marked increase in debt between 2020-21 and 2022-23. This may be due to the graduate counts within this college changing significantly by year, dropping from 61 graduates in 2021-22 to 27 in 2022-23. Due to its dynamic nature, it is difficult to assess the trends in this college.

RATIO OF LOAN DEBT: MASTER'S DEGREES In order to help explain the changes we see in the loan debt average for master's students, we examined the changes in the proportion of total aid that is loan aid. These data are shown in Table 5. Increasingly, loans appear to make up the lions-share of total aid (total aid being measured as loans plus grants plus scholarships).

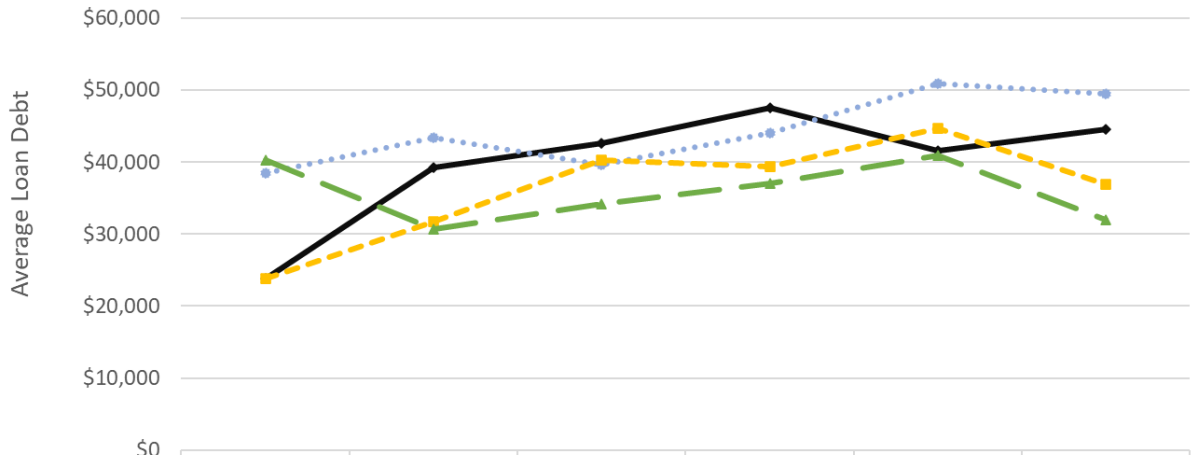


Traditionally, grant and research dollars are reserved for doctoral-level graduate assistants. This helps to explain the lack of non-loan aid for our master's population compared to our doctoral student population. However, Table 5 shows that this ratio, although consistent across years for Health and Human Sciences, Business, Interdisciplinary, and Nursing, has increased substantially for Visual and Performing Arts, Education, and Arts and Sciences since 2017-18. Much of what was making up the 25% to 35% of non-loan aid for these students between 2017-18 and 2019-20 has since vanished.

LOAN DEBT: DOCTORAL DEGREES

Table 6 shows the stark contrast between master's and doctoral graduates in terms of the proportion of loan aid to their total aid for their given degree. Whereas Table 4 showed that master's graduates' average loan debt was relatively stable across the six years shown (the exception being Nursing and Interdisciplinary grads), doctoral graduates' average debt has increased for Nursing DNP students, Arts and Sciences, and Health and Human Sciences students. Education showed a decrease, after climbing for the prior three years. The implication here is, as was shown for our master's graduates, the availability of grants and scholarships has been reduced in recent years requiring students to turn to loans to finish their degrees. It should be noted that several colleges are not shown because they did not have enough loan-receiving doctoral graduates to provide stable trend data.

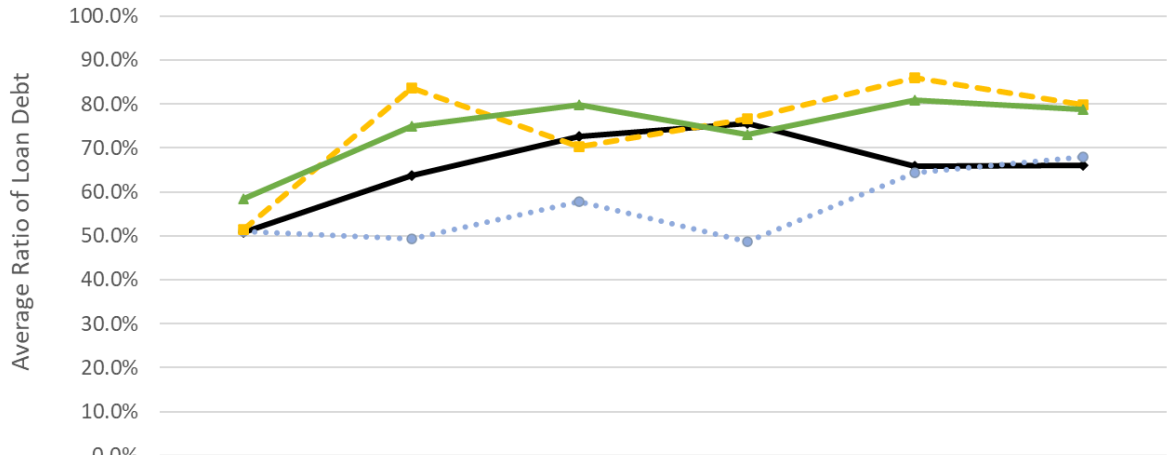
TABLE 6: AVERAGE LOAN DEBT FOR DOCTORAL GRADUATES FOR SCHOOLS WITH MORE THAN FIVE GRADUATES WITH LOANS



	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
—●— School of Nursing (Professional)	\$23,882	\$39,292	\$42,620	\$47,532	\$41,613	\$44,535
...●... College of Arts and Sciences	\$38,458	\$43,346	\$39,610	\$44,017	\$50,941	\$49,422
- - - ■ - - - Health and Human Sciences	\$23,874	\$31,786	\$40,262	\$39,406	\$44,741	\$36,872
- - - ▲ - - - School of Education	\$40,299	\$30,692	\$34,192	\$37,101	\$40,924	\$32,013

RATIO OF LOAN DEBT: DOCTORAL DEGREES The proportion of total aid in 2017-18 that was loan aid was between 50% and 60% for all the doctoral graduates shown in Table 7. Following 2017-18, some significant yearly variability appears. However, the overall trend is a relative increase in the proportion of loan aid from about 50% to between 65% to 80%. This reinforces the suspicion that non-loan sources of aid have been drying up in the last five years.

TABLE 7: PERCENT OF TOTAL AID THAT IS LOAN AID FOR DOCTORAL GRADUATES FOR SCHOOLS WITH MORE THAN FIVE GRADUATES WITH LOANS



	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
—●— School of Nursing (Professional)	50.9%	63.6%	72.6%	75.5%	65.9%	66.0%
...●... College of Arts and Sciences	50.9%	49.4%	57.8%	48.6%	64.5%	67.9%
- - - ■ - - - Health and Human Sciences	51.5%	83.7%	70.3%	76.7%	85.9%	79.7%
- - - ▲ - - - School of Education	58.4%	75.0%	79.7%	73.1%	81.0%	78.8%

DISCUSSION

Time to degree hasn't changed appreciably for most of our graduate students, implying that the ratio of full- to part-time students has remained fairly stable since 2017. Complex programs such as the MSN/MBA and the Nursing professional DNP are the exceptions. Loan debt for master's students has also remained stable for most colleges. Exceptions include colleges that offer complex programs such as those in Nursing and Interdisciplinary programs. A new MSN/MBA in Health Management started in 2021 likely contributes to the variation in the Interdisciplinary numbers. Loan debt has been on a steady decline for Nursing master's students since 2018, and Health and Human Sciences students since 2019. Like loan debt, the ratio of loans to total aid has been relatively steady for most master's students at above 90%. Important exceptions are Arts and Sciences and Visual and Performing Arts master's students. Loan debt ratios increases substantially for these students, implying that other sources of aid are no longer available for these students that rely on aid.

The situation for doctoral students is less clear, in part because we have fewer students to measure. However, a slow and steady increase in both loan debt and in the ratio of loan debt to total aid is clear within this five-year trend.

A significant artifact that shows in all of the tables above is the increase in the variability from the trend (both within and between colleges) between 2021 and 2022. These are, of course, the COVID years. We should expect trends to stabilize as we move on past the COVID years. The question remains: Will future trends move back toward past averages, or will the current changes stabilize into a new norm?

If you have questions or comments about this brief, please contact: Mark Davenport at M_Davenport@uncg.edu