UNC CHARLOTTE
The Graduate School

Graduate Enrollment Strategic Planning

University of North Carolina, Charlotte

June 2014

EDUVENTURES

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EXECUTIVE SUMMARY

UNC Charlotte launched a long-term graduate enrollment planning initiative to establish graduate enrollment goals that are consistent with the vision and mission of the university. To support the process of developing its first plan, UNC Charlotte partnered with Eduventures, a research and advisory firm specializing in higher education, who worked with college associate deans, department chairs, and program directors to inform this report.

This plan, at the target, estimates 31% graduate enrollment growth by 2020 and 49% growth by 2025 (Table 1). In order to achieve these goals by 2025, the colleges requested resources in the form of faculty and staff lines, student funding, and physical space, such as classrooms, offices, and other research and educational areas. The body of this report outlines each college's enrollment goals and requested resources.

Table 1. Summary of Enrollment Goals for 2019-20 and 2024-25

	2019-2020			2024-2025		
	Low	Target	Stretch	Low	Target	Stretch
Enrollment Goals	**5,311**	**6,303**	**7,127**	**6,014**	**7,217**	**8,209**
Enrollment Growth[1]	10%	31%	48%	25%	49%	70%

These goals have been approved by each college dean and reviewed by the Graduate School for consideration by the Chancellor and Provost of UNC Charlotte. Program-level goals and detailed resource requests can be found in the Appendix of this report.

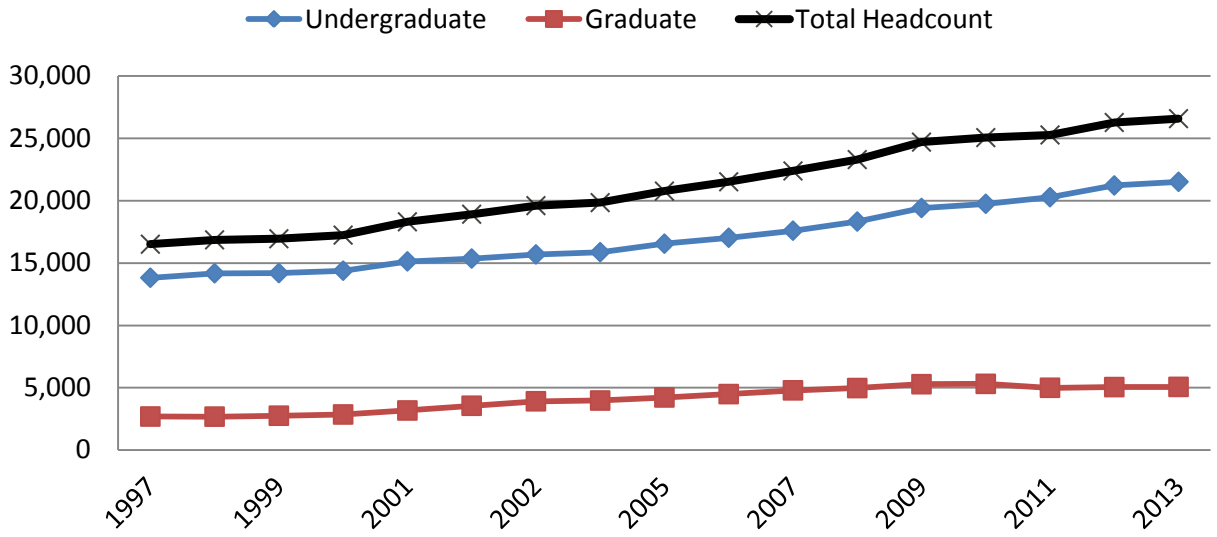
The final section outlines the Graduate School's conclusions and recommendations for investments in areas identified as having the greatest need to build capacity for graduate enrollment growth. To meet enrollment targets, the University must commit to graduate education as a strategic priority, integrating it into the overall planning, evaluation, and resource allocation processes.

[1] Percent change between fall 2013 and goal.

BACKGROUND AND CHARGE

UNC Charlotte's history has been marked by steady enrollment growth. Since 1997, the University has grown from 16,611 students to 26,584 in the fall of 2013 (Figure 1). Graduate enrollment has nearly doubled in that time, from 2,689 to a high of 5,308 in 2010. In 2011, graduate enrollment dropped to below 5,000 students, but in the last couple of years, has slowly begun to increase again, with 5,068 graduate students enrolled in the fall of 2013. It's anticipated, however, that based on graduate enrollment for spring 2014, the fall 2014 numbers will again drop below 5,000.

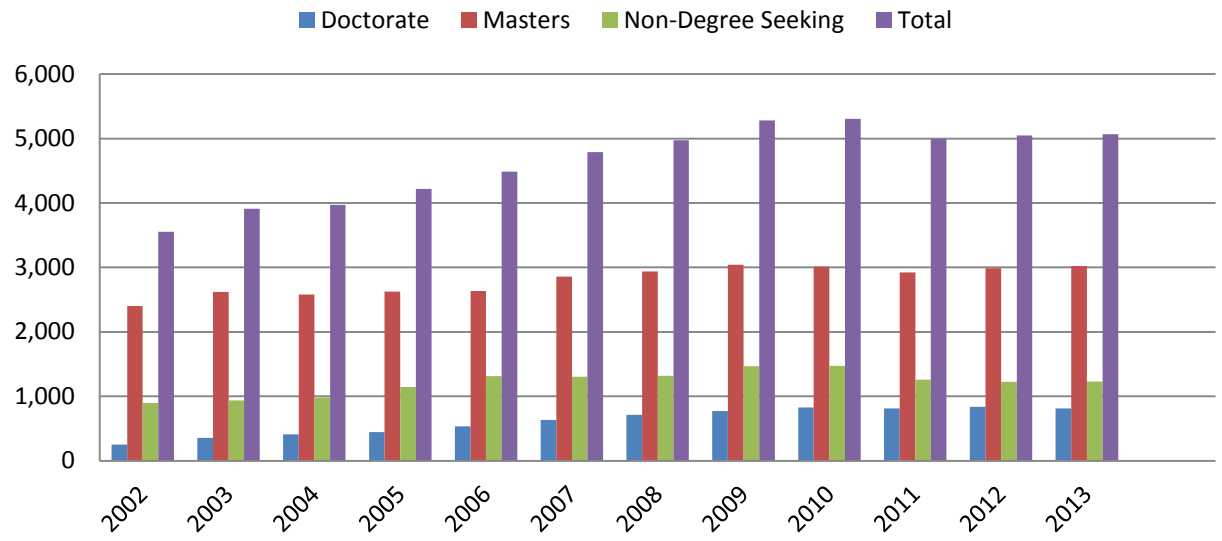
Figure 1. Student enrollment at UNC Charlotte, fall term headcount



Doctoral education began at UNC Charlotte in 1994 with the implementation of three PhD degrees and an incoming class of 8 students. By 2002, 252 students were enrolled in nine doctoral programs (Figure 2). Rapid expansion of new degrees continued, and in eight years, the University had an inventory of 19 programs and over 800 doctoral students. The enrollment decline in 2011 and spring 2014 was primarily at the master's and certificate levels in the College of Education, a trend that may turn if legislative changes in summer 2014 support graduate education for teachers moving forward.

Although growth has been good, there are environmental trends that create a growing need to look to the future and plan how to grow graduate programs. Enrollment increase funding is now tied to student success and support; retention, efficiency, and graduation impact funding of the University by the State. The pace for the approval of new degree programs has slowed dramatically, and there is much greater scrutiny by the North Carolina Legislature and UNC Board of Governors around program viability and cost. Federal and state legislative changes (e.g., decreasing support for research, federal student-loan policy, teacher education) have had a negative effect on graduate education, and changing student demographics (e.g., fewer high school graduates, a volatile international student market) may impact our ability to recruit, enroll, and retain graduate students.

Figure 2. Changes in graduate enrollment from 2002 to 2013.



In March 2013, Chancellor Dubois initiated a phased long-range enrollment planning initiative. In the first phase, a forecast was developed for undergraduate enrollment through 2020.[1] This project was completed in May 2013, and Chancellor Dubois subsequently charged the Dean of the Graduate School to lead a long-range enrollment initiative to establish enrollment goals consistent with the vision and mission of UNC Charlotte. The graduate long-range enrollment plan would use the enrollment target developed by the undergraduate planning initiative, which projects 35,000 students by 2020. The plan would consider changes in the composition of the student body, most notably, expanding the proportion of graduate and professional students, particularly at the doctoral level, so that 25% of students are enrolled at the graduate level.

In conducting the graduate enrollment plan, Chancellor Dubois instructed that targets should focus on:

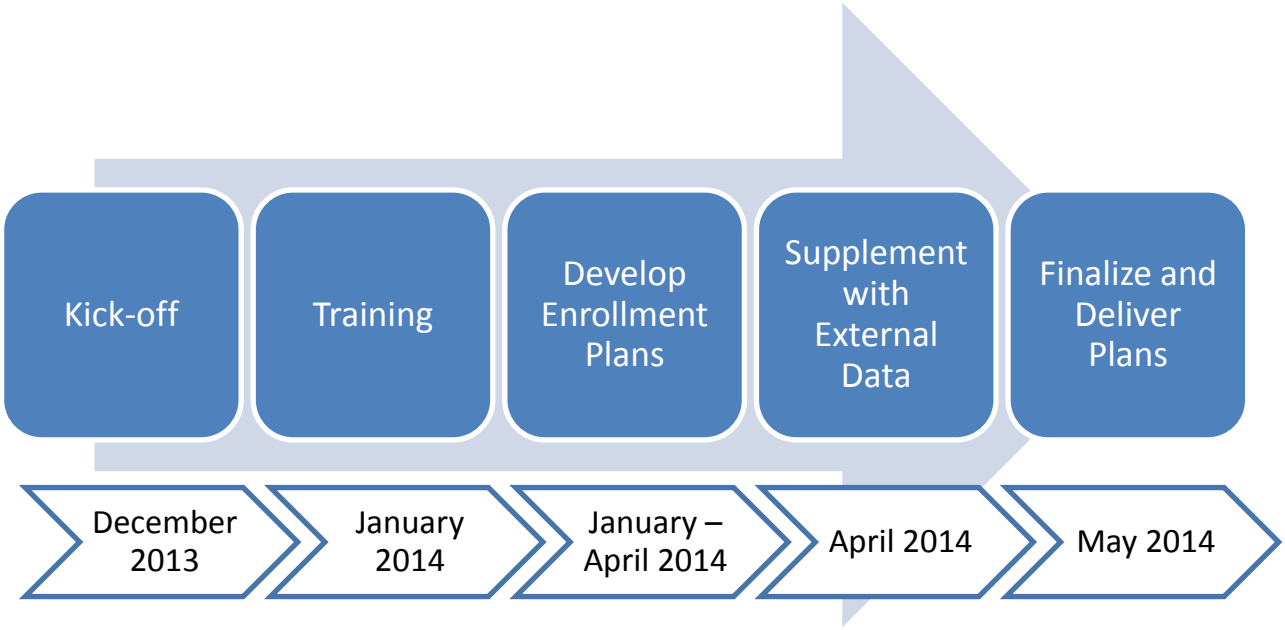
- The capacity for existing graduate programs to grow.
- Consideration of the development and implementation of new degree programs, particularly at the doctoral level, bearing in mind that the pace of new program approval has slowed.
- The resources required to support this enrollment plan.

[1]Long-Range Enrollment Planning Stage One Enrollment Projections for UNC Charlotte 2014-2020

METHODOLOGY

In order to develop this long-term graduate enrollment plan, UNC Charlotte launched a university-wide initiative in fall 2013 with the goal of completing the first plan by April 2014. Based on feedback from the colleges and challenges to data collection, this deadline was extended to May 2014 by the Graduate School. To support the process of developing its first plan, UNC Charlotte partnered with Eduventures, a research and advisory firm specializing in higher education. The timeline for the engagement was as follows:

Figure 3. Graduate Enrollment Planning Process Timeline[2]



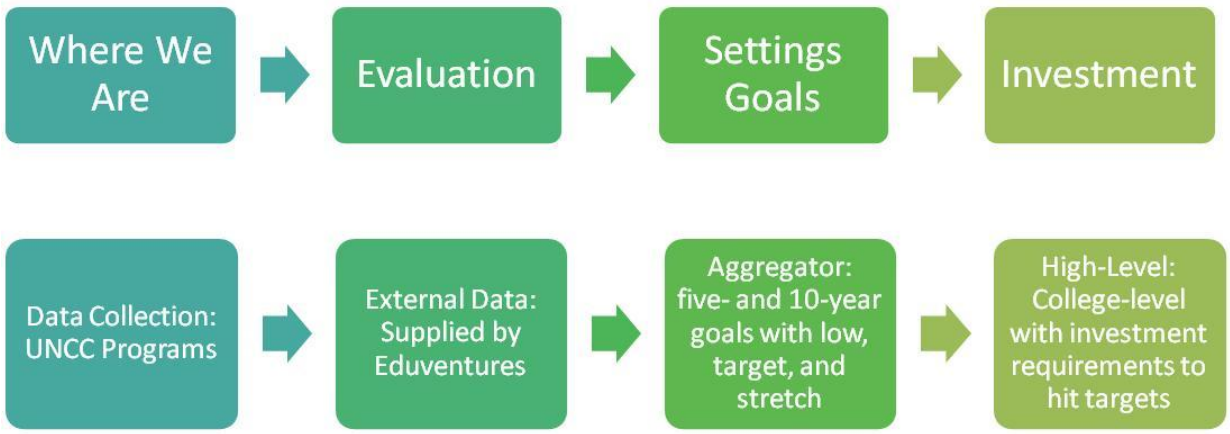
Eduventures recommended that UNC Charlotte use a deductive approach to develop its graduate enrollment plan (see Figure 4 on next page). In order to gather the necessary program-level data for enrollment goal setting, Eduventures developed a process for UNC Charlotte that included gathering data from the UNC Charlotte Institutional Research Office (IR) and the Graduate Program Directors (GPDs) for each graduate degree and certificate program offered. UNC Charlotte has not engaged in systematic program-level enrollment planning in the past, and as such, did not have the infrastructure in place to support data gathering across 137 programs. For this initial planning stage, Eduventures provided a web-based survey platform (Qualtrics) to gather the required data from the GPDs. Eduventures pre-populated the program-level data supplied by IR into that platform, allowing the GPDs the ability to view their data online. Once data collection was completed, Eduventures supplied the college liaisons with the graduate program data provided by UNC Charlotte as well as market data provided by Eduventures.

[2] Refer to page 8 for detailed timeline.

The Graduate School provided a list of 137 program codes to Eduventures, which were programmed into Qualtrics to allow for each degree program to have a unique log-in. Eduventures then provided on-site training at UNC Charlotte to train the GPDs on the data collection process. Based on feedback from the GPDs, some edits were made to the web form, which went live on Monday, February 3, 2014. It should be noted that five GPDs expressed doubt that the program level data supplied by Institutional Research were accurate. The Graduate School worked directly with the GPDs and Institutional Research to address any inaccuracies.

The first step of the plan was to gather data to understand where each of UNC Charlotte's graduate programs is today. Next, Eduventures supplied external data[3] on the supply and demand for UNC Charlotte's current suite of programs to identify areas of opportunities for the University. Next, the internal and external data were used by the departments to guide their goal-setting process and determine which programs had the greatest potential for growth. This helped determine what level of investments was to be requested by each college. Following the completion of this study, if a program is recommended to be enhanced or invested in, an action plan should be developed by the Graduate School in conjunction with the program's Associate Dean and Graduate Program Director.

Figure 4. Process for Developing Graduate Enrollment Plan



Where We Are

In order to make data-driven decisions, data are needed for each of UNC Charlotte's graduate programs. To collect these data in a consistent manner, a Program Planning Form was completed for each program with a graduate program director. The Program Planning Form collected a variety of information on topics such as program design, capacity, enrollment funnel, progress to degree, and funding. Certain data, such as enrollment funnel and progress to degree, were collected centrally through Institutional Research and were pre-populated for each program.

[3] Refer to definitions on next page for more information on the data supplied.

Evaluation

Once the internal data were collected and arranged in a systematic manner, Eduventures supplied key external (market) data. Eduventures used federal data and proprietary databases to examine degree conferrals and labor market statistics, such as projected employment growth. Eduventures then used these data to triangulate the supply and demand for programs. External data were coupled with UNC Charlotte's internal data to help prioritize the programs.

Setting Goals

Program data from each college were compiled into aggregator forms by the college liaisons and graduate program directors. GPDs and college liaisons were trained to use the data to inform the development of key performance indicators and metrics to determine goals for each of the programs. For each program, six goals were set: five-year and 10-year, with target, safety, and high goals.

Investment

All of the programmatic data were rolled up into the high-level plan, which focuses on overall college data. For programs that need to be enhanced or invested in, the estimated costs to reach the target and high goals were calculated.

Once discrepancies in the data were identified and corrected, Eduventures arranged for biweekly check-ins with the college liaisons to provide support during the data-gathering and evaluation process. College liaisons were provided program and college enrollment goal-setting templates, and they completed the data-gathering process in conjunction with the graduate program directors and department chairs.

Table 2. Timelines

Milestone	Date	Outcome
Kick-off of Graduate Enrollment Strategic Planning Project	Nov 2013	
On-Site Enrollment Planning Kick-off with Deans	Dec 16, 2013	Outline of strategic enrollment planning process and UNC Charlotte project
GPD on-site training	Jan 29-30, 2014	Campus weather closure resulted in training on 1/30/2014 only
Web platform launch	Feb 3, 2014	
First round of edits to program codes provided by UNC Charlotte	Feb 4, 2014	IR data no longer viewable on web form
IR data reports sent to GPDs	Feb 7-10, 2014	
Deadline for GPDs to complete program data	Feb 14, 2014	Campus weather closure resulted in deadline extension to 2/19/2014
GPD Program Data Revised deadline	Feb 19, 2014	45% Completed
College liaison biweekly check-ins begin	Feb 26, 2014	Update on data completion status; schedule next check-in
GPD Meeting (Eduventures attends via video conference)	Feb 28, 2014	Training on goal-setting process; outline of upcoming milestones
Second round of program code edits provided by UNC Charlotte	Mar 4, 2014	Develop new strategy for collecting department-level data from GPDs
Eduventures shares UNC Charlotte graduate enrollment planning template with colleges	Mar 11, 2014	
Deadline for college liaisons, department chairs and program directors to set preliminary enrollment goals and develop initial set of required investments	End of March	Develop initial draft of individual college enrollment plans using template provided
Department Chairs and Program Directors finalize individual program goals and requested budget needed	April 18, 2014	Return completed graduate enrollment planning templates to college liaisons
College liaisons review and consolidate the individual program templates into single college enrollment plan, including any additional college-level resource requests	April 30, 2014	Submit College Enrollment Plans to the Graduate School and Eduventures
Eduventures delivers final report to the Graduate School	June 6, 2014	

GRADUATE ENROLLMENT PLANS

Enrollment Projections (5 and 10 years)

The colleges estimate enrolling a target of 6,303 graduate students by 2020 and 7,217 students by 2025, which represents 31% and 49% growth, respectively (Tables 3 and 4).

Table 3. Enrollment Goals for 2019-20 and 2024-25, by College

College	Fall 2013	2019-2020 Goals			2024-2025 Goals		
		Low	Target	Stretch	Low	Target	Stretch
Art + Architecture	77	111	148	185	148	185	222
Business	668	700	1,000	1,250	750	1,250	1,500
Computing and Informatics	450	703	805	881	970	1,074	1,175
Education[4]	1,723	1,385	1,453	1,521	1,453	1,521	1,591
Engineering	500	627	855	1,056	668	912	1,175
Health and Human Services	494	471	613	755	471	613	755
Liberal Arts and Sciences	858	1,100	1,150	1,200	1,275	1,350	1,425
The Graduate School	58	214	279	279	279	312	366
Total Graduate Enrollment	**4,828**[5]	**5,311**	**6,303**	**7,127**	**6,014**	**7,217**	**8,209**

[4] The College of Education has cited a number of challenges that are projected to have a negative impact on their ability to attract graduate students. Please refer to the Conclusions and Recommendations and College of Education college-specific plan on page 41 of the Appendix for more information on these challenges.

[5] There are about 250 undesignated enrolled graduate students who are not included in these projections.

Table 4. Percent Growth Between Fall 2013 and Goal, by College

College	Fall 2013	2019-2020 Goals			2024-2025 Goals		
		Low	Target	Stretch	Low	Target	Stretch
Art + Architecture	77	44%	92%	140%	92%	140%	188%
Business	668	5%	50%	87%	12%	87%	125%
Computing and Informatics	450	56%	79%	96%	116%	139%	161%
Education	1,723	-20%	-16%	-12%	-16%	-12%	-8%
Engineering	500	25%	71%	111%	34%	82%	135%
Health and Human Services	494	-5%	24%	53%	-5%	24%	53%
Liberal Arts and Sciences	858	28%	34%	40%	49%	57%	66%
The Graduate School	58	269%	381%	381%	381%	438%	531%
Total Graduate Enrollment		**10%**	**31%**	**48%**	**25%**	**49%**	**70%**

Supplemental Student Funding Support

In order to achieve these enrollment goals, the following student funding support will be needed in addition to the current amount of student funding.

Table 5. Supplement Student Funding Support Requested to Meet Enrollment Goals, by College

College	2019-2020 Goals			2024-2025 Goals		
	Low	Target	Stretch	Low	Target	Stretch
Art + Architecture[6]	$314K	$314K	$314K	$418K	$418K	$418K
Business[7]	$0	$0	$0	$0	$0	$0
Computing and Informatics[8]	$2.1M	$2.1M	$2.1M	$4.6M	$4.6M	$4.6M
Education[9]	$252K	$378K	$504K	$378K	$504K	$630K
Engineering[10]	$370K	$625K	$935K	$502K	$895K	$1.2M
Health and Human Services[11]	$0	$353K	$353K	$0	$425K	$425K
Liberal Arts and Sciences[12]	$1.3M	$1.6M	$1.8M	$2.3M	$2.8M	$3.3M
The Graduate School[13]	$0	$0	$0	$0	$0	$0
Total Cumulative Student Funding Support[14]	**> $4.5M**	**> $5.4M**	**> $6.1M**	**> $8.3M**	**> $9.8M**	**> $10.6M**

[6] Additional context for these student funding requests was not provided by the CoAA.

[7] BCOB plans to grow its graduate programs primarily at the master's level; therefore, the college assumes all new student resources will be generated by CBTI.

[8] CCI's student funding requests are primarily technology-related, such as annual investments to refresh, scale, and expand computing/storage capacities and services. These costs are separate from annual operating, support, and licensing costs for CCI computing services.

[9] Presumably, COE requested graduate assistants, which was calculated into dollar amounts (based on $18K per GA).

[10] Additional context for these student funding requests was not provided by the College of Engineering.

[11] CHHS requested student funding in the form of graduate assistants (18K per GA), in additional to GASP funding. In 2019, 16 additional doctoral graduate assistants plus GASP funding and five MS graduate assistants are requested. In 2024, 20 additional doctoral graduate assistants plus GASP funding and five MS graduate assistants are requested.

[12] CLAS focuses its student funding requests on graduate assistants and, in particular, increasingly competitive graduate assistantships. CLAS indicated that raising existing GA stipends to a more competitive level (minimum of $10K for master's and $16K for doctoral) has been a college priority for the past several years.

[13] Students in Graduate School programs will be enrolled in Professional Science Master's programs and, therefore, will be mostly self-paying. Any students support provided will come from the tuition increment.

[14] Requested funding is cumulative and not additive. That is, a total of $5.4 million is requested in 2019, and a total of $9.8 million is requested in 2024, not $15.2 million in 2024 ($5.2M+$9.8M).

Faculty Resource Requests

In order to achieve these enrollment goals, the following additional faculty resources are being requested.

Table 6. Faculty Lines Requested to Meet Enrollment Goals, by College

College	2019-2020 Goals			2024-2025 Goals		
	Low	Target	Stretch	Low	Target	Stretch
Art + Architecture[15]	1	1	1	3	3	3
Business[16]	2	10	12	3	12	15
Computing and Informatics[17]	22	22	22	44	44	44
Education	22	33	44	33	44	55
Engineering	9	17	26	17	26	42
Health and Human Services[18]	2	1.5	17.5	2	36.5	36.5
Liberal Arts and Sciences[19]	19	23	28	35	40	49
The Graduate School[20]	5	9	10	6	9	12
Total Cumulative Faculty Resource Requests	**82**	**133**	**161**	**143**	**215**	**257**

[15] These additional lines faculty lines will be needed to support the increased graduate enrollment. They would be tenure lines at the assistant professor level, with an anticipated average starting salary of $80,000 ($240,000 total required).

[16] In order for the BCOB to reach its 2019 goal of 1,000 graduate students, it would need 10 new faculty positions: seven tenure-track/ research faculty members and three clinical faculty members.

[17] CCI requested additional tenure-track faculty lines in order to achieve the projected enrollment. Projections for five years assume 20 new faculty lines: two BiG, 10 CS, and 10 SIS. Projections for ten years assume 40 new faculty lines: four BiG, 20 CS, 20 SIS.

[18] These faculty resources note the number of faculty positions (36.5 FTE) needed to increase the graduate student enrollment in CHHS. Five Full Professors ($645K); 11 Associate Professors ($1,135,200); and 20.5 Assistant Professors ($1,798,260) – 29% fringe included.

[19] The additional SCH produced by the target enrollments for five and 10 years suggests the need for 23 and 40 additional faculty members at those time points. (The projected need from departments was actually somewhat higher than these figures.) The amounts for the low and high goals were adjusted accordingly.

[20] For both the Health Informatics and DSBA programs, growth will be limited primarily by access to faculty. In theory, the program could expand class sizes, or reach out to adjunct faculty to create additional sections of popular courses to expand capacity. The reality is that for both the College of Health and Human Services and the College of Business, there are limitations due to respective accreditation standards. For the MHA program, class size is particularly important, and for the MBA and Business programs, there is a requirement for full-time faculty to teach courses. Full-time, tenured faculty are required for growth.

Staff Resource Requests

In order to achieve these enrollment goals, the following additional staff resources are being requested.

Table 7. Cumulative Staff Lines Requested to Meet Enrollment Goals, by College

College	2019-2020 Goals			2024-2025 Goals		
	Low	Target	Stretch	Low	Target	Stretch
Art + Architecture[21]	2	2	2	2	2	2
Business[22]	0	2	3	1	3	4
Computing and Informatics[23]	4	4	4	7	7	7
Education	12	18	24	18	24	30
Engineering	6	9	10	8	11	16
Health and Human Services[24]	2	8	8	2	11	11
Liberal Arts and Sciences[25]	1	5	9	1	5	9
The Graduate School[26]	2	3	3	2	3	3
Total Staff Resource Requests	**29**	**51**	**63**	**41**	**66**	**82**

[21] These staff positions are needed to support the MUD, which is located at the Center City Building (CCB), and the M.Arch. programs. At present, there is no direct staff support of any kind for the MUD Graduate Program Coordinator, faculty, or students at the CCB. Salary: $35,000. For the M.Arch. programs, this staff position is needed to support advising, recruitment, and the Graduate Program Coordinator. Salary: $35,000. Both positions are needed by 2019-20.

[22] BCOB will need three additional staff members to achieve its goal of 1000 students by 2019. These staff members will focus on recruiting out-of-market students for these programs.

[23] To support enrollment projections, additional staff positions are required. Projections for 2015 assume two new administrative staff positions and a new associate dean position. One administrative staff position will provide dedicated operational support to graduate program coordinators and facilitate student admission and matriculation processes. A second administrative staff position will centralize program assessment, recruitment, and retention activities while working with coordinators and faculty on program governance activities. The new associate dean position will allow the college to align leadership with its teaching, research, and service/administration/outreach activities. The college is currently filling a vacant associate dean position, targeting the primary duties for this position to oversight of academic programs. Additionally, research and service duties will be required of this associate dean. Adding a new associate dean position will allow the college to optimize roles and responsibilities of its associate deans, and thus, better support all of its academic programs. Projections for five years will require one additional staff position dedicated to student advising and progression, and to operate the internship programs that are a part of the PSMs. Projections for year 10 assume three additional staff positions to scale student support.

[24] In Year 1, CHHS will need an additional two staff (one administrative assistant and one Director of Assessment = $112,230); in Year 5, we will need six additional staff (two finance assistants and three administrative assistants = $233,490); in Year 10, we will need an additional three administrative assistants = $135,450). Fringe of 29% included.

[25] Several of the programs that are projecting growth indicated the need for additional support staff, and some of the interdisciplinary programs that expect growth are currently sharing a single staff member. The additional enrollments for five and 10 years require five and nine additional support staff.

[26] We have proposed a new combined Student Services Coordinator for the DSBA and HI programs to support day-to-day administrative needs and an Administrative Assistant to support the DSBA Program Director, the Graduate Center Director, and the larger DSBA Academic initiative. In addition, the PSM's requirement for professional skills/PLUS course, combined with the large enrollment and the cross-curricular nature of the programs, argues for a full-time Curriculum Specialist. That position would not only develop and deliver PLUS courses, but would also develop and coordinate interdisciplinary curricula within the program and between departments.

Additional Physical Resource Requirements

In order to achieve these enrollment goals, some colleges have indicated a need for additional physical space. Please refer to the individual college plans for complete details on the type of physical resources requested.

Table 8. Additional Physical Space Requested to Meet Enrollment Goals, by College

College	2019-2020 Goals			2024-2025 Goals		
	Low	Target	Stretch	Low	Target	Stretch
Art + Architecture[27]	None			Studio/Office Space		
Business[28]	14 CCB rooms/night	18 CCB rooms/night	20 CCB rooms/night	15 CCB rooms/night	20 CCB rooms/night	22 CCB rooms/night
Computing and Informatics[29]	25 offices; research laboratory, classroom, and server room space			50 offices; research laboratory, classroom, and server room space		
Education	12 rooms	18 rooms	24 rooms	18 rooms	24 rooms	30 rooms
Engineering	Yes	Yes	Yes	Yes	Yes	Yes
Health and Human Services[30]	4 rooms	34 rooms	34 rooms	4	66 rooms	66 rooms

[27] As the MUD and M.Arch. programs expand, the CoAA will need additional studio and faculty office space at the CCB and on campus. The additional space on campus may be gained through access to redesigned studio spaces in adjacent buildings.

[28] The BCOB needs additional classroom space at CCB. We currently have priority for nine classrooms after 5 p.m. We can usually get 12 classrooms, but have been turned down for more classrooms than that in the evening. There are 22 classrooms in the building, but no more than 17 total have ever been allocated to academic classes in the evening. We can begin to run classes during the day, but to do that in any size, we have to provide "hoteling" office space in CCB where faculty can work during the time between classes. The current cubicle system is inadequate because the open design of the space is not conducive to work which requires concentration/quiet. Faculty members note that the current layout of the cubicle space prevents them from doing tasks such as prepping class, conducting research, or writing anything more than simple emails. If we had reservable, private offices available, faculty members could teach at CCB during the day and evening and still be productive during the time between classes.

[29] To support CCI enrollment projections, substantial new physical (facility) resources are required. Currently, the college is at capacity for office space in Woodward Hall for faculty and staff. New office space (five to 10 offices) is necessary to support 2015 projections. A substantial expansion of office space (25 offices by year five; 25 additional offices by year ten) is necessary to support five- and 10-year projections. Research laboratory resources also must grow to support the five- and 10-year PhD student projections. (Current research laboratory space will support 2015 projections.) More analysis is needed to determine specific requirements for additional research space. A substantial increase in classroom space is required to accommodate the added instructional sections. Five- and 10-year projections will require additional instructional laboratories and server room space. More rigorous analysis is required to quantify these requirements.

[30] In the above table, office space (rooms) is indicated. Calculations were based on three graduate students/offices. Faculty and staff had individual offices for a grand total of 64 new office spaces. In addition to the office space, the SON graduate program will require an additional health assessment lab with live models and exam tables. The Kinesiology department would need an additional wet lab to accommodate faculty and student research. With the growth in public health graduate programs, the PHS Dept. will need a wet lab for environmental health.

Liberal Arts and Sciences[31]	Yes	Yes	Yes	Yes	Yes	Yes
The Graduate School[32]	Yes	Yes	Yes	Yes	Yes	Yes
Total Educational and Research Areas Requested[33]	**> 55**	**> 95**	**> 103**	**> 87**	**> 160**	**> 168**

[31] Space is needed for growth in all CLAS programs except, perhaps, the certificate programs. Chairs and directors indicate the need for additional office space for new faculty and GAs. The science departments (especially Chemistry and Geography & Earth Sciences) cite the need for more and improved lab space. CLAS has no additional space available and no new buildings are on the near-term horizon. No realistic estimate can be provided to provide the additional space for up to 500 new graduate students, 50 new faculty and nine staff across our nearly 50 graduate programs.

[32] A key obstacle for the interdisciplinary programs is the absence of a central location, a hub where faculty, students, and industry partners can work and collaborate. We will need a central administrative space, with faculty offices, and space for study and collaboration. In addition, an interdisciplinary lab space will be required so that all stakeholders have access to cutting-edge technology and software for research.

[33] Approximate and cumulative.

PORTFOLIO PRIORITIZATION STRATEGY OVERVIEW

If UNC Charlotte meets the target goals for 2019-20 and 2024-25, the percentage of graduate students that comprise the overall institutional class will be at 18% and 21%, respectively, assuming that the undergraduate enrollment increases, such that total enrollment at the University will be at 35,000 in both years (Table 9). If UNC Charlotte meets the high goals for those years, the percent of graduate students will be at 20% and 23%, respectively. Given that these figures are less than the 25% goal set forth by the Chancellor, this section aims to identify opportunities for the university to innovate in order to reach new markets, offer new program delivery models, and evaluate its academic portfolio to determine if a revision to the Chancellor's graduate enrollment goals is advisable.

As UNC Charlotte considers how to best enhance its graduate portfolio in an effort to both increase the overall number of graduate students and achieve the goal of increasing the ratio of graduate students to undergraduate students at the university, it should focus on expanding its current set of programs to new audiences through new delivery modalities and expanding its certificate offerings. These options are viable for the university because they allow for greater flexibility and experimentation while building upon the current portfolio rather than replacing the core offerings of graduate programs.

Table 9. Composition of Graduate Students in UNC Charlotte's Total Student Population

LOW GOALS	2013-14	2019-20	2024-25
Total Enrollments	26,584	35,000	35,000
Graduate Enrollments	5,068	5,311	6,014
% Graduate	**19%**	**15%**	**17%**

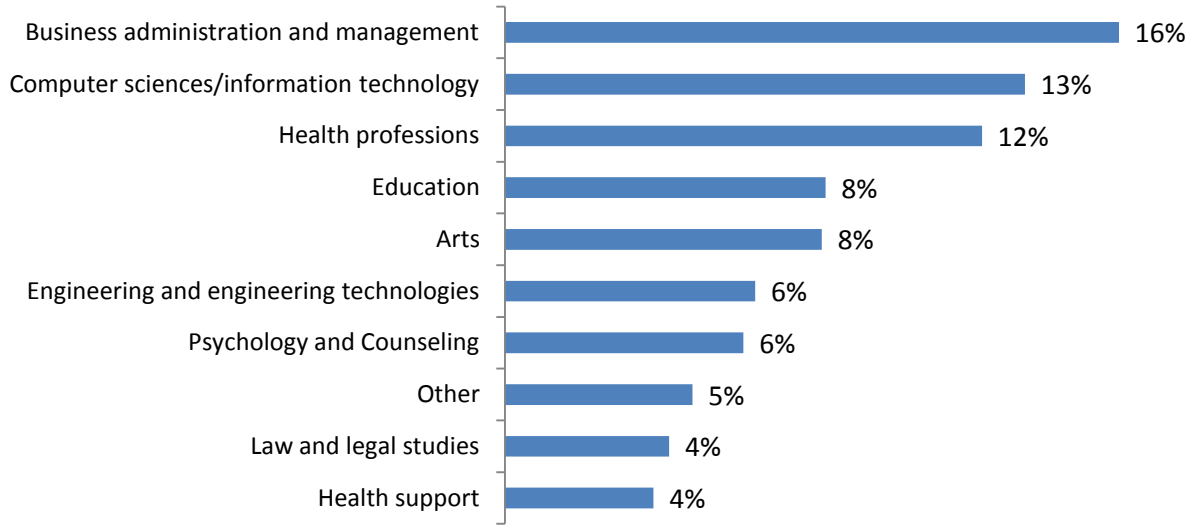
TARGET GOALS	2013-14	2019-20	2024-25
Total Enrollments	26,584	35,000	35,000
Graduate Enrollments	5,068	6,303	7,217
% Graduate	**19%**	**18%**	**21%**

HIGH GOALS	2013-14	2019-20	2024-25
Total Enrollments	26,584	35,000	35,000
Graduate Enrollments	5,068	7,217	8,209
% Graduate	**19%**	**20%**	**23%**

Program Prioritization by Degree Level and Discipline

In terms of program prioritization, Eduventures recommends that UNC Charlotte seriously consider expanding the current programs in business, computer science and information technology, and the health professions[34] to include online delivery. These are the top programs of interest among prospective adult learners[35] (Figure 5) and are similar to programs that prospective adult learners would like to pursue in an online format (refer to page 27 for information on online program interest). Another top program for expansion consideration should be counseling programs, as these have strong demand as well. Counseling is of less interest to prospective students in an online format; therefore, other modalities, such as hybrid, should be explored. Top programs tend to differ by degree level.[36] For example, doctoral programs with the most favorable market conditions typically are STEM fields, whereas top master's programs are within education.[37] The subsequent sections of this report outline the market opportunities for programs, by degree level.

Figure 5. Top 10 Programs of Interest Selected by Prospective Adult Learners (%)



Doctoral

The doctoral programs with the best market opportunity in North Carolina, based on a supply and demand factors, are focused on STEM fields, such as electrical engineering, biology, and computer and information sciences (Table 10). In fact, these top three doctoral programs are already in UNC

[34] Health professions includes disciplines such as public health, medicine, pharmacy, and nursing. These do not include health support professions.
[35] That is, adult learners who intend to obtain higher education in the next three years. Eduventures, 2013. "Consumer Preferences."
[36] Please refer to the Appendix, Program Prioritization by Graduate Level, on page 46 for a detailed breakdown of conferrals in North Carolina for the past five years by doctoral, master's, and certificate levels.
[37] Reflections on how the education market may change in the coming years due to changes in NC legislation are offered on page 18.

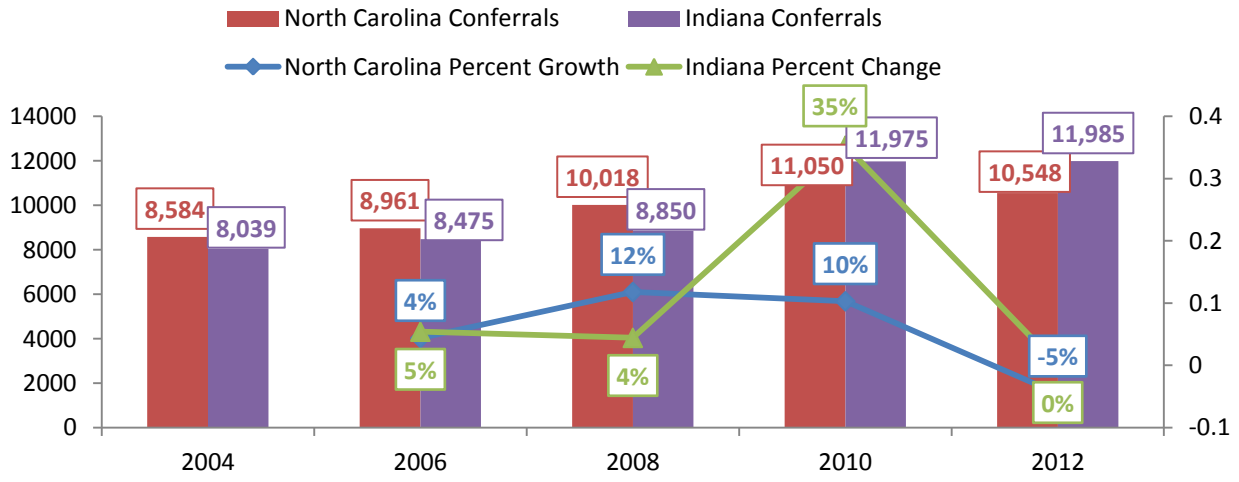
Charlotte's current portfolio, indicating that the university may have potential to expand these programs by increasing enrollments through new modalities or supplementing the current programs with similar disciplines. Among doctoral programs that UNC Charlotte already offers, counselor education, special education, and public health have the most favorable market conditions in the state, in addition to the three programs previously mentioned (Table 11).

Master's

At the master's level, STEM fields, such as information technology and computer science, have the most positive market opportunity (Table 12). Based on current data, education fields also appear to have positive market opportunity; however, given the recent legislative changes in the state of North Carolina, whereby teachers are no longer guaranteed a 10% pay increase upon receiving a master's degree in education and the fact that a master's degree is not required to teach in North Carolina, it is likely that interest in master's degrees in education will stagnate or even decrease. The University has already experienced enrollment declines in master's program in education (M.Ed. and M.A.T.).

Indiana is among a handful of states that underwent similar legislative changes. After the changes were implemented in 2011, graduate education enrollments quickly stagnated (Figure 6). While the state experienced dramatic growth in enrollments between 2008 and 2010, likely due to the recession, this growth came to a halt between 2010 and 2012, when growth was negligible. Further, the large public universities in the state, Indiana University and Purdue University, for example, experienced negative growth, where Indiana University Bloomington experienced a 17% decrease in graduate education enrollments between 2010 and 2012, after experiencing steady, positive growth between 2004 and 2010. In the Online Program Strategy section of this report, we outline suggested strategies for UNC Charlotte to develop its online program portfolio, both within education and outside, in order to stymie negative graduate enrollment growth.

Figure 6. Graduate Education Fall Enrollments in Indiana and North Carolina between 2004 and 2012[38]



[38] NCES IPEDS (2014).

Eduventures created a three-point, five-category scoring system to prioritize the recommended program areas for the graduate enrollment plan. For each category, the program is evaluated and scored on a scale of 1 to 3, with 1 being the lowest score and least ideal situation, while 3 is the highest score and the most favorable situation for that particular program's category. For example, the competition for doctoral programs in computer and information sciences is not favorable (1), indicating that there are a significant number of competitor institutions that offer programs in this area. Conversely, doctoral programs in textile sciences and engineering have more favorable competition (3), indicating that there are far fewer competitors for this discipline. The scores across the five categories are added to determine the total score. For more detailed information on the scoring system, please refer to the Appendix, Dashboard Scorecard, on page 54 for the detailed methodology behind these dashboards.

Table 10. Top 10 Doctoral Programs in North Carolina[39]

CIP Description	Supply to Demand	Competition	Market Size	Labor Demand	Fit in Portfolio	Total Score
Electrical and Electronics Engineering	3	1	3	3	1	11
Biology/Biological Sciences, General	3	1	3	3	1	11
Computer and Information Sciences, General	3	1	3	3	1	11
Textile Sciences and Engineering	3	3	3	2	0	11
Pharmaceutics and Drug Design	3	3	2	3	0	11
Materials Engineering	3	3	2	3	0	11
Computer Engineering, General	3	3	2	3	0	11
Science Teacher Education/General Science Teacher Education	3	3	2	3	0	11
Music, General	3	3	2	3	0	11
Pharmacy	3	1	3	3	0	10

Table 11. Top 10 Doctoral Programs in North Carolina, within UNC Charlotte's Current Portfolio[40]

CIP Description	Supply to Demand	Competition	Market Size	Labor Demand	Fit in Portfolio	Total Score
Electrical and Electronics Engineering	3	1	3	3	1	11
Biology/Biological Sciences, General	3	1	3	3	1	11
Computer and Information Sciences, General	3	1	3	3	1	11
Counselor Education/School Counseling and Guidance Services	3	1	3	2	1	10
Special Education and Teaching, General	3	1	2	3	1	10
Public Health, General	2	3	2	2	1	10
Optics/Optical Sciences	3	3	2	1	1	10

[39] Refer to Appendix, Dashboard Scorecard, on page 48 for the methodology behind this dashboard.

[40] UNC Charlotte's current portfolio in this dashboard is defined by having at least one degree conferral reported to the CIP code in 2012. The CIP codes to which UNC Charlotte reports degree conferrals were chosen by the university's Institutional Research unit.

Information Technology	2	3	1	3	1	10
Educational Leadership and Administration, General	1	1	3	3	1	9
Mechanical Engineering	1	1	3	3	1	9

Table 12. Top 10 Master's Programs in North Carolina[41]

CIP Description	Supply to Demand	Competition	Market Size	Labor Demand	Fit in Portfolio	Total Score
Information Technology	3	3	2	3	1	12
Teacher Education, Multiple Levels	3	3	2	3	1	12
Architecture	3	2	3	2	1	11
Computer Science	3	1	3	3	1	11
Elementary Education and Teaching	3	1	3	3	1	11
Mathematics Teacher Education	3	1	3	3	1	11
Teaching English as a Second or Foreign Language/ESL Language Instructor	3	1	3	3	1	11
Textile Sciences and Engineering	3	3	3	2	0	11
Manufacturing Engineering	3	3	2	3	0	11
Engineering/Industrial Management	3	3	2	2	1	11

Table 13. Top 10 Master's Programs in North Carolina, within UNC Charlotte's Current Portfolio[42]

CIP Description	Supply to Demand	Competition	Market Size	Labor Demand	Fit in Portfolio	Total Score
Information Technology	3	3	2	3	1	12
Teacher Education, Multiple Levels	3	3	2	3	1	12
Architecture	3	2	3	2	1	11
Computer Science	3	1	3	3	1	11
Elementary Education and Teaching	3	1	3	3	1	11
Mathematics Teacher Education	3	1	3	3	1	11
Teaching English as a Second or Foreign Language/ESL Language Instructor	3	1	3	3	1	11
Engineering/Industrial Management	3	3	2	2	1	11
Biology/Biological Sciences, General	3	1	3	3	1	11
Bioinformatics	3	2	2	3	1	11

[41] Refer to Appendix, Dashboard Scorecard, on page 48 for the methodology behind this dashboard.

[42] UNC Charlotte's current portfolio in this dashboard is defined by having at least one degree conferral reported to the CIP code in 2012. The CIP codes to which UNC Charlotte reports degree conferrals were chosen by the university's Institutional Research unit.

Certificates

Given that certificate programs are the least regulated in terms of getting approval for launching new programs, albeit the most regulated by the DOE for gainful employment, UNC Charlotte could expand its certificate portfolio as a strategy to increase graduate enrollments, especially if the certificate programs are offered online or even at an off-campus location in a cohort model. UNC Charlotte should focus on certificate programs that fit within its current suite of resources (particularly course offerings and faculty resources). While certificate information in IPEDS is less comprehensive than other degree levels,[43] the data reported in IPEDS in North Carolina were examined. Based on the available data, it appears that education, business, and nursing programs are the most viable areas in which UNC Charlotte could expand its certificate offerings. Further research needs to be conducted on the certificate market in North Carolina and surrounding states to better understand where there are gaps in the certificate programs that are being offered by competitors.

Table 14. Top 10 Certificate Programs in North Carolina[44]

CIP Description	Supply to Demand	Competition	Market Size	Labor Demand	Fit in Portfolio	Total Score
Teacher Education and Professional Development, Specific Levels and Methods, Other	3	3	3	1	1	11
Management Information Systems, General	3	3	3	2	0	11
Higher Education/Higher Education Administration	3	3	3	2	0	11
Mathematics Teacher Education	2	3	3	3	0	11
Educational/Instructional Technology	3	1	3	2	1	10
Clinical Nutrition/Nutritionist	3	3	3	1	0	10
Special Education and Teaching, General	3	3	2	2	0	10
Practical Nursing, Vocational Nursing and Nursing Assistants, Other	2	3	1	3	1	10
Educational Leadership and Administration, General	3	1	3	2	0	9
Family Practice Nurse/Nursing	3	1	3	2	0	9

[43] Please refer to the Appendix, Program Prioritization by Graduate Level, on page 46 for more information.
[44] Refer to Appendix, Dashboard Scorecard, on page 48 for the methodology behind this dashboard.

Table 15. Top Certificate Programs in North Carolina, within UNCC's Current Portfolio[45]

CIP Description	Supply to Demand	Competition	Market Size	Labor Demand	Fit in Portfolio	Total Score
Teacher Education and Professional Development, Specific Levels and Methods, Other	3	3	3	1	1	11
Educational/Instructional Technology	3	1	3	2	1	10
Practical Nursing, Vocational Nursing and Nursing Assistants, Other	2	3	1	3	1	10
English Language and Literature, General	2	3	1	2	1	9
Counselor Education/School Counseling and Guidance Services	2	1	2	2	1	8
Language Interpretation and Translation	1	3	2	1	1	8

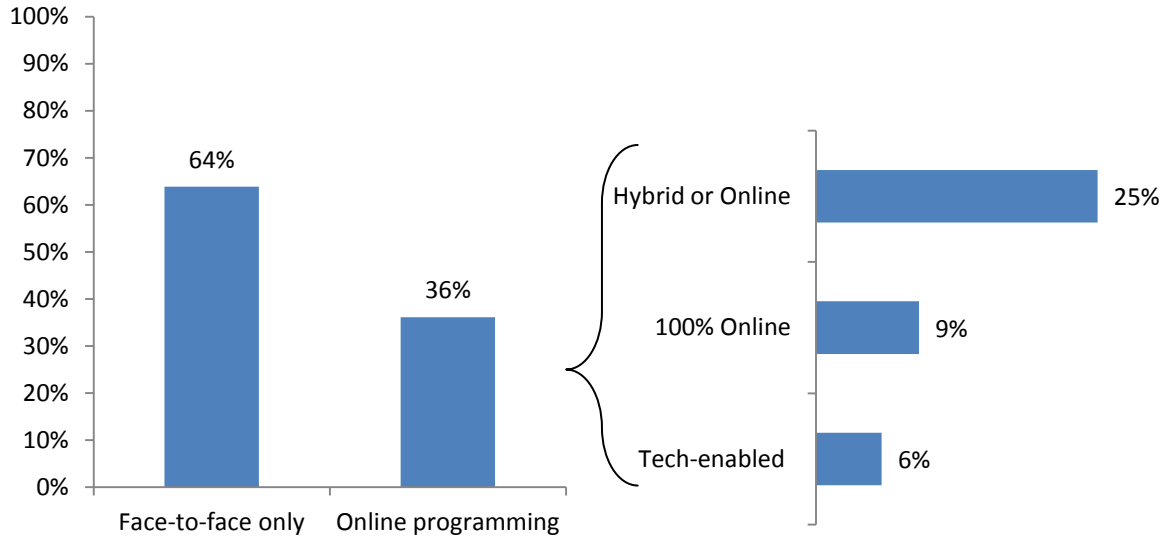
[45] UNC Charlotte's current portfolio in this dashboard is defined by having at least one degree conferral reported to the CIP code in 2012. The CIP codes to which UNC Charlotte reports degree conferrals were chosen by the university's Institutional Research unit.

Online Program Strategy[46]

The majority of UNC Charlotte's programs are offered solely in a face-to-face format (Figure 7). A smaller set of UNC Charlotte's programs are offered with some online programming: a quarter are offered hybrid or online, less than 10% are offered completely online, and 6% are tech-enabled (that is, offered through face-to-face and hybrid formats). Online programs can be a means to increase graduate enrollments for the University; however, a decision should first be made about the nature and purpose of online programs and how they align with the University's mission. If UNC Charlotte decides to move forward with expanding its online offerings, it should also consider how online programs fit within UNC Charlotte's current disciplines, the desired audience (regional vs. national), required investments, and faculty adoption. Three common strategies for online programming are:

- To supplement the face-to-face education.
- To reach new audiences, such as adult learners who seek more flexible and convenient formats to obtain their degree.
- To diversify the academic portfolio.

Figure 7. Distribution of UNC Charlotte's Graduate Programs, by Delivery Mode[47]



Supplement Face-to-Face

In order to accomplish the first strategy, UNC Charlotte should focus on examining the use of technology in courses that are currently tech-enabled and aim to develop these programs into fully hybrid and/or online formats. Given that the University does not need to receive approval from the state Legislature and UNC Board of Governors to develop new delivery modalities for existing programs, expanding its

[46] The Director of Distance Education, Dr. Dennis McElhoe, has reviewed this section and his comments have been incorporated accordingly.

[47] As selected by Graduate Program Directors in the first phase of data collection in February/March 2014.

online programming within its current academic portfolio can be a means to: 1) supplement the current face-to-face programs by enabling technology in the courses and programs, and 2) diversifying its portfolio by having an adequate representation of online programming to compliment its on-campus options. The same can be done with programs that are only offered in a face-to-face format, but seek methods to introduce technologies into the curricula.[48]

Reach New Audiences

Based on Eduventures analysis,[49] UNC Charlotte's region, the Southeast,[50] has a high intensity of online enrollment; 28% of online enrollments are concentrated in this region. That is, of all online enrollments in the United States, 28% comes from students who live in the Southeast. Further, institutions of UNC Charlotte's size represent about 20% of the regional market in terms of online providers; however, they command about 35% of the regional market in terms of online headcount. This indicates that UNC Charlotte will need to focus its online strategy on differentiating the University and its programs from the current providers in the market.

Given that UNC Charlotte does not currently offer many of its programs with online options, the University has opportunities to provide more online programs to North Carolinian students and potentially new out-of-state markets. In order to further assess the viability of expanding UNC Charlotte's online market within and beyond North Carolina, the University should build upon its brand analyses[51] by conducting market research to uncover markets that have demand for particular programs with little to no competition. UNC Charlotte should focus on the markets where it already has brand strength when considering where to expand its online program offerings. State Authorization[52] should also be considered when evaluating offering programs to out-of-state students. While UNC Charlotte is fully or partially authorized to admit students from 39 states, these regulations are modified regularly and should be monitored to ensure that the University is in compliance.

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[48] For more information on online pedagogy, please refer to the Eduventures report, *Online Higher Education – Moving From Ordinary to Extraordinary. Part 1: State of Play – Online Pedagogy at Leading Schools*.

[49] Eduventures, 2014. *Online Strategy Diagnostic Tool*.

[50] The Southeast is defined as North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Virginia, Louisiana, West Virginia, and Kentucky.

[51] The brand analyses performed for the University in the Charlotte region and across the Triad indicated that the brand awareness of UNC Charlotte was neutral.

[52] State Authorization is the federal regulation that requires institutions to comply with the regulations of individual states concerning marketing, recruitment and admission of student to distance education programs. While UNC Charlotte has worked to become fully or partially authorized to admit students from 39 states in the University's DE programs, State Authorization has nonetheless significantly impacted the ability of numerous institutions, not just UNC Charlotte, to grow enrollments by recruiting students from outside their home states.

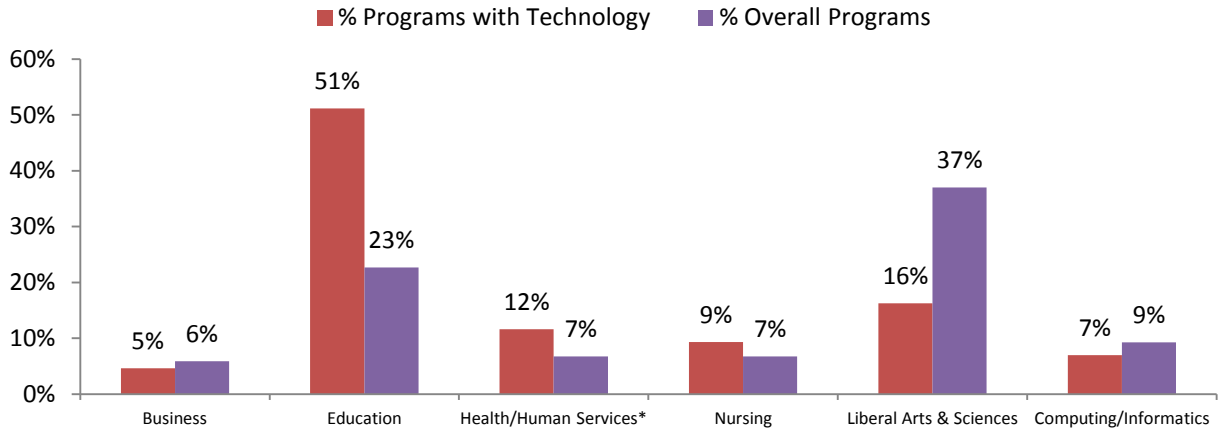
Table 16. Distribution of Online Learners in North Carolina and Its Surrounding States (Fall 2012 Enrollments)[53]

	Total Online Headcount	% Graduate Headcount	% Exclusively in Distance Education (DE) Courses[54]	Exclusively DE Students Located in Same State as Institution	Exclusively DE Students Not Located in Same State as Institution[55]
North Carolina	**80,638**	**18%**	**83%**	**91%**	**6%**
Georgia	63,400	21%	84%	70%	28%
South Carolina	21,613	23%	72%	91%	8%
Tennessee	32,458	25%	66%	83%	17%
Virginia	121,133	33%	91%	45%	52%

Diversify Academic Portfolio

UNC Charlotte's current portfolio of online programs is largely focused on programs offered by the College of Education (Figure 8), even though education programs comprise less than a quarter of UNC Charlotte's overall graduate portfolio. In the College of Liberal Arts and Sciences, 16% of programs are offered with an online component, even though it has the most programs in the university.

Figure 8. Percent of UNC Charlotte Programs with Online Programming, by College[56]



*Excluding Nursing, but includes Health Informatics.

[53] NCES IPEDS (2014).

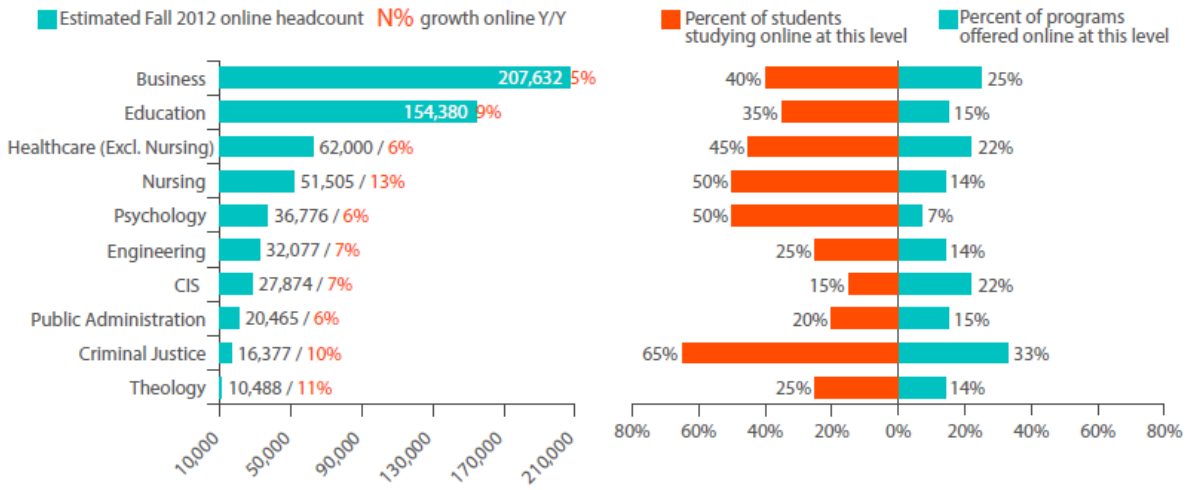
[54] Distance Education Course, as defined by NCES IPEDS, refers to a course in which the instructional content is delivered exclusively via distance education. Requirements for coming to campus for orientation, testing, or academic support services do not exclude a course from being classified as distance education. For more information on distance education definitions, please refer to the Eduventures and Sloan Consortium report, *Blending In: The Extent and Promise of Blended Education in the United States*.

[55] The location of a small subset of online students is unknown; therefore, "Exclusively DE Students Located in Same State as Institution" and "Exclusively DE Students Not Located in Same State as Institution" do not equal 100%.

[56] These data were provided by Graduate Program Directors in the first phase of data collection in February/March 2014.

This may be due to the types of programs that are offered within the College of Liberal Arts and Sciences; however, there are certain programs that are commonly offered through colleges of liberal arts and sciences that are heavily concentrated in online offerings, such as psychology, public administration, criminal justice, and theology (Figure 9).

Figure 9. At the Master's level, Business, Education, and Healthcare are most in demand and growing, with the highest saturation of online enrollments in Nursing, Psychology, and Criminal Justice.[57]

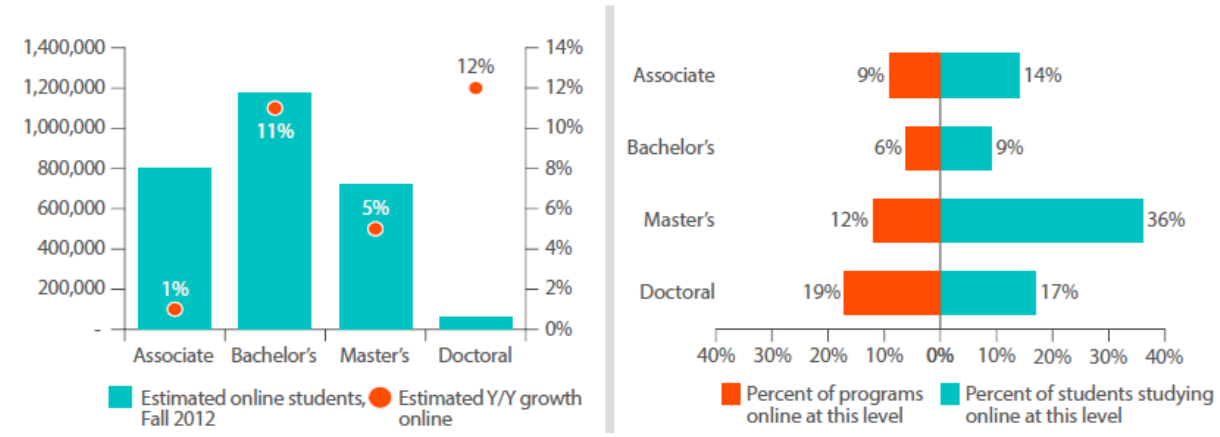


Source: Eduventures, Inc.

In terms of degree level, online master's degrees are the most popular among students (Figure 10 and Figure 11). Because master's programs tend to be shorter programs, the programs tend to have a more mature, driven student population and be focused more on application rather than theory. Therefore, UNC Charlotte should focus the movement of its graduate programs to online formats from its current master's program portfolio. Further, the University should focus on programs that are highly sought after by prospective students in an online format, such as business, computer science, and education (Figure 12). Prior to developing the expansion strategy, the University should conduct research on the current portfolio that is being offered by competing online providers to evaluate whether there are gaps that UNC Charlotte could easily fill with its current academic portfolio. One strategy for leveraging and potentially increasing its education enrollments could be to expand the marketing of its online education programs to teachers located in surrounding states. Three of North Carolina's surrounding states (Tennessee South Carolina, and Georgia) indicate that teachers with a master's degree earn more than teachers with just a bachelor's; however, it is unclear whether this is guaranteed. In order for this strategy to be viable, the licensing requirements for teachers in these states should be evaluated.

[57] Eduventures, 2014. "Seizing Opportunity, Navigating Risk: A Guide to the Evolving Online Market."

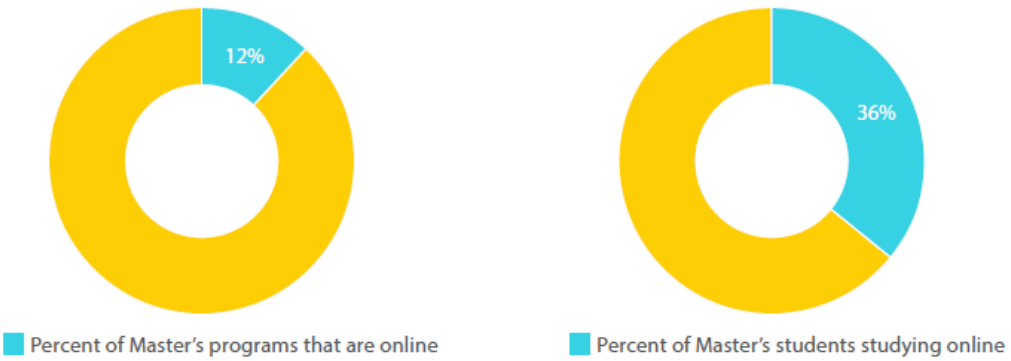
Figure 10. Online market growth has slowed this year, but master's still have by far the highest concentration of online students and degrees.[58]



Source: NCES, American Association of Community Colleges (for Associates estimates), National Student Clearinghouse, Eduventures analysis. "Est. Y/Y Growth" is calculated based on enrollment estimates from 2011 to 2012. "% of Students" refers to students studying online as compared to students across all higher education studying at this degree level. "% of Programs" refers to online programs compared to programs across all of higher education.

Source: Eduventures, Inc.

Figure 11. As of fall 2012, 12% of master's programs offered online enrolled 36% of all master's students.[59]

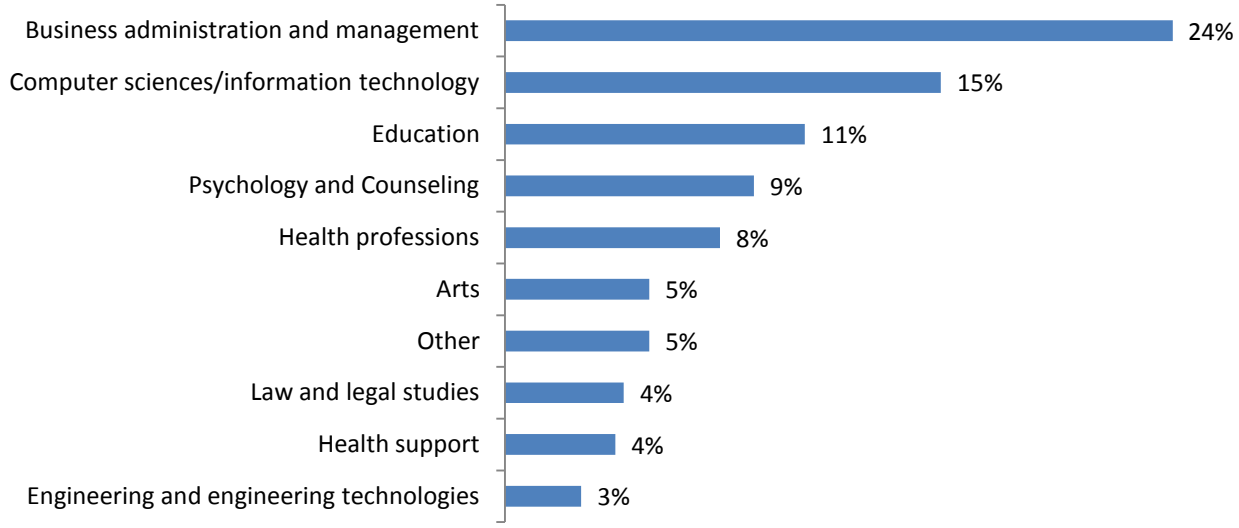


Source: NCES, Eduventures analysis.

Source: Eduventures, Inc.

[58] Eduventures, 2014. "Seizing Opportunity, Navigating Risk: A Guide to the Evolving Online Market."
[59] Eduventures, 2014. "Seizing Opportunity, Navigating Risk: A Guide to the Evolving Online Market."

Figure 12. Prospective Adult Learners' Programs of Interest in a 100% Online Format



CONCLUSIONS

This strategic graduate enrollment planning initiative represents a starting point for what we believe to be an important, ongoing University process. Our intent is to initiate a collaborative planning process involving graduate program directors, department chairs, deans, and the central administration to address the issues surrounding enrollment growth, funding, student success, the role of graduate education in research and economic development, the mix of graduate to undergraduate students, and the appropriate inventory and delivery of doctoral, master's, and certificate programs at the UNC Charlotte, North Carolina's Urban Research University.

The college graduate enrollment plans prepared by the responsible Graduate Program Directors and Department Chairs, reviewed by the Associate Deans, and approved by the College Deans, were reviewed by Eduventures and the Graduate School. We then rolled the college plans into an overall graduate enrollment plan for the University. Based on target enrollment goals set by each of the colleges, we project a graduate enrollment of 6,303 by 2019-20, an increase of 1,235 graduate students over the fall 2013 enrollment of 5,068 (an increase of 247 graduate students per year from now to 2019-20). The data also support a target enrollment projection of 7,217 graduate students in 10 years. The colleges were also asked to set both low and stretch goals for enrollment. When rolled up together, low goals project 5,311 graduate students for 2019-20 and 6,014 for 2024-25; stretch goals project 7,127 graduate students for 2019-20 and 8,209 for 2024-25.

Data indicate existing enrollment capacity at the master's level (including the graduate certificate level). Doctoral programs are at or near capacity, so enrollment will remain at fewer than 900 students until new doctoral programs are added to the University's inventory. We should also note the fact that while a program may have capacity to enroll additional students, growth may be limited by external demand for graduates as well as internal resources to support and retain students. New certificate programs may provide vehicles to increase enrollment and support future enrollment in master's degrees. Certificates also have the added benefit of rapid implementation, only requiring on-campus authority to establish. Professional master's and certificate programs with high external demand may serve as revenue sources for the University in addition to the applied academic benefits they provide for graduate education, so increasing capacity in selected programs may be strategically feasible (high student demand + low-cost University investment = high yield results).

The College of Education was the only college to project negative enrollments for the five- and 10-year goals. Education cites a number of challenges negatively impacting their ability to attract quality students to their programs, including recent legislative actions that affect teacher pay, struggling school system budgets that impact teacher hires, increased competition from local and regional institutions, and the proliferation of online programs by competitors. However, the College is committed to growth in graduate education and believes they can do so with innovative programming and the resources

necessary to implement these initiatives. A detailed description of the programs positioned to grow in the College of Education is presented in the Appendices.

We have some confidence that with the appropriate resources and a focused approach on long-term growth in graduate enrollments, the target goals can be achieved, particularly if the College of Education and the Belk College of Business can show positive enrollment growth. We have much less confidence that the stretch projections could be realized by 2019 and even less confidence in stretch projections that extend into 2024. Some colleges might be able to attain their stretch goals, but overall, we believe the current inventory of graduate degrees would not be sufficient to add 2,059 and 3,141 new graduate students by 2019 and 2024, respectively. We note that when we reach the target goal of 6,303 graduate students in 2019-20, this would represent 18% of the total headcount of the 35,000 students projected by 2020.

Access to additional resources to grow graduate enrollment will be required. In this study, we asked the question, "What resources are required in order (for the colleges) to reach their enrollment projections." We used four very broad categories of assets to obtain an idea of resources the programs believed to be necessary. While we did ask for dollar amounts and numbers of new faculty and staff, often there was no distinction made about the source of funding (e.g., enrollment increase, tuition increment, grants and contracts). As such, a more realistic approach is to think of resource allocation in each of the categories as *high*, *medium*, or *low* to support enrollment growth at the programmatic level. It should also be noted that programs often considered undergraduate enrollment projections as well as graduate in making this assessment. Detailed resource requests for the colleges can be found in the Appendices.

In general, the colleges identified new faculty lines as their most basic need. Each college expressed a requirement for at least two new lines to meet their target enrollment goal for 2024-25. The College of Computing and Informatics and the College of Education both projected a need for 44 new positions by 2024-25, while the College of Liberal Arts and Sciences proposed 40. Although not specified, we assume the new faculty would all be new tenure-track lines. The College of Business estimated 10 new faculty lines would be required to reach their target enrollment goal of 1,000 graduate students in 2019-20, including seven tenure-track and three clinical faculty. Collectively, 128 new faculty were requested for 2019-20 goals, with an additional 68 faculty needed to reach enrollment target goals for 2024-25. Using the current University Instructional Salary rate of $83,352, this would amount to $10,669,056 and $16,336,992, respectively.

The next requirement was student support funding. The projection to meet the 2019-20 enrollment target goal is $5.4 million, with an additional $4.4 million for 2024 (for a total need of $9.8 million). In most cases, the funds would be used to support graduate assistantships and tuition awards; however, the College of Computing and Informatics identified a requirement for $350K-$500K annually through 2024 for computing, storage, and network infrastructure to support their students' technical needs. The

Belk College of Business and the Graduate School did not request centralized student support funding. Instead, support would come from tuition increment resources.

The third category specified for resources was space/facilities. While it is difficult to calculate the cost, each college identified a demand for additional classroom, research, laboratory, and office space. The Belk College of Business requested additional classroom and office space in the Center City Building. For the other colleges, few specifics were given about where the facilities might be located or how much they would cost, but it will be important to continue to work with the colleges to increase their physical capacities to grow. For program delivery, it will be necessary to conduct an in-depth analysis of the potential for distance education, online programming, and blended formats to offset some of our physical space requirements for enrollment growth; the cost to develop courses for online delivery and student support for the online delivery will also have to be determined.

The demand for additional staff positions was a relatively low priority for the colleges in this exercise. New staff positions were requested primarily for administrative support for graduate programs (e.g., recruitment, program administration and advising, and professional development).

In this report, we do not attempt to make recommendations about which programs or colleges should receive specific allocations for meeting enrollment goals. Rather, our objective is to provide an evaluation of the University's potential to grow graduate enrollment that supports its mission and priorities, and what resources would be required to support this growth. Our analysis does show a high demand for resources, and it is clear that UNC Charlotte would have to expand its investment in graduate education in order to meet enrollment objectives.

Graduate education as a core function of North Carolina's Urban Research University is dedicated to the exploration and advancement of the limits of knowledge to not only serve society's social, technical, and professional needs, but also the need for intellectual expansion. As important as graduate education is to the vision and mission of the University, it is not currently an integral part of strategic planning; thus, the campus does not regularly perform a comprehensive review of the quality and effectiveness of our graduate programs. **To ensure the infrastructure necessary to strategically advance our mission and vision as a comprehensive research university, graduate education must be explicitly considered in all aspects of strategic planning, budgeting, and annual evaluation.**

RECOMMENDATIONS

We strongly recommend the University commit to graduate education as a strategic priority and integrate graduate enrollment management at the program, department, and college levels into the University's overall planning, evaluation, and resource allocation processes. To this end, we further recommend the implementation of an incentive-based budget process that includes practices and procedures for the appropriate and timely allocation of resources to support graduate education. Strategic planning, budgeting, evaluation and accountability, research opportunities, fundraising, and advocacy for graduate education must be strengthened to support near- and long-range graduate enrollment increases at the University of North Carolina at Charlotte.

RECOMMENDATION #1:

The first step towards integrating graduate enrollment into strategic planning is to conduct the graduate enrollment planning process on an annual basis and include the results in annual reports (at the department, college and university levels). We believe that the study completed here will serve as a valuable starting point to annually evaluate progress towards enrollment objectives. The Graduate School will partner with Institutional Research, ITS, and the colleges to develop a web-based system, *e*GEM (electronic Graduate Enrollment Management system), to deliver pre-populated (historic) data to Graduate Program Directors, Department Chairs, and College Associate Deans, and also to provide a data collection interface to input and manage enrollment projections. The metrics employed in graduate enrollment planning and annual evaluation can also support graduate program review.

Each graduate program has now developed plans for five- and 10-year enrollment projections consistent with their vision and mission statements along with a general resource needs assessment to achieve these goals. Using *e*GEM, programs can annually review their progress and make adjustments to their enrollment plans to meet future projections. These enrollment management plans can be analyzed at the department, college, division, and University levels so that as they evolve, a funding model that is transparent, nimble, and flexible may apply resources as appropriate to advance the University's mission and vision as a research university. In this way, UNC Charlotte can ensure that graduate education is a shared responsibility with portioned accountability using appropriate metrics to track success.

RECOMMENDATION #2:

Concurrent with integrating graduate enrollment planning into the strategic planning and annual evaluation processes, we propose the appointment of a Graduate Enrollment Management (GEM) Task Force to develop and recommend an incentive-based budget proposal along with procedures and guidelines to allocate resources for graduate education. Once completed, the enrollment planning and budget/resource allocation processes should be incorporated into the new strategic plans for the colleges, the Divisions of Research and Economic Development, Student Affairs, Academic Affairs, and the University.

APPENDICES

Roles and Responsibilities

The Graduate School

- Work with campus stakeholders (colleges, Institutional Research, ITS) to create a data collection/goal setting tool.
- Work with college deans to appoint college liaisons for the process.
- Work with Institutional Research to provide colleges and programs with accurate data.
- Work with college liaisons to establish timeline for the graduate enrollment planning process.
- Conduct regular check-ins with college liaisons to address questions during the process.
- Determine additional resources the Graduate School and programs need to support recruitment and retention to meet college goals (for new AND continuing students).
- Compile and validate each of the college enrollment plans.
- Submit final report to Provost/ Chancellor/ Board.
- Work with the Graduate Enrollment Management Workgroup to develop tactics and identify best practices for recruiting and retaining graduate students.
- Provide information on best practices for graduate enrollment planning to department chairs and college liaisons to support the enrollment planning process.

College Deans

- Work with the Graduate School to appoint a college liaison for the process.
- Set strategic priorities for the college, which informs enrollment strategy.
- Review college plans with college liaisons, and make necessary adjustments.
- Approve plans.

College Liaisons

- Work directly with the Graduate School to develop the timeline for the graduate enrollment planning process.
- Work directly with program directors and department chairs to ensure all data are submitted by deadline(s).
- Evaluate the graduate enrollments plans submitted by departments.
- Request additional information, as necessary, from program directors and department chairs.
- Prioritize resource requests at the department level and include additional college-level resource needs.
- Consolidate program/department plans into one college-wide enrollment plan.
- Have plan approved by college dean.
- Submit plan to the Graduate School.

Department Chairs

- Evaluate initial program goals submitted by program directors, and make necessary adjustments.
- Prioritize resource requests.
- Confer with college liaisons to provide additional department context/needs.
- Use data and information results to establish focused goals each for recruitment, retention, service, etc. and enrollment projection models.
- Develop the action plans followed by the appropriate faculty and staff determining the accountability measures and metrics to track.
- Implement the strategy, monitor the success of graduate enrollment plan, and make necessary adjustments.

Program Directors

- Update program details (program design and faculty).
- Set initial program goals.
- Propose programmatic resources requests.
- Confer with the department chairs to provide necessary context for goals and resource requests.

Institutional Research

- Supply accurate data (e.g., funding, enrollment funnel, progress to degree, graduation rates) for programs and colleges.

Program-Level Projections and Investment Requests

College of Arts + Architecture

Prepared by Dr. Lee E. Gray, Senior Associate Dean
Approved by Ken Lambla, Dean

Graduate Enrollment Projections, by Program

Program	2019-2020 Goals			2024-2025 Goals		
	Low	Target	Stretch	Low	Target	Stretch
M.Arch. I	40	50	60	50	60	70
M.Arch. II	30	40	50	40	50	60
M.Arch. III*	20	30	40	30	40	50
M.Arch./MUD	6	8	10	8	10	12
MUD	15	20	25	20	25	30
Total	**111**	**148**	**185**	**148**	**185**	**222**

*Note: The College of Arts + Architecture hopes to shift this new track into an independent degree program and enroll students no later than fall 2018 to meet national accreditation standards.

College-Level Resource Requests

Student funding support required

Program	2019-2020		2024-2025	
	SoA Funding	G.S. Funding	SoA Funding	G.S. Funding
M.Arch. I	$20,000	$72,000	$36,000	$90,000
M.Arch. II	$36,000	$90,000	$48,000	$112,000
M.Arch. III (MS)	$12,000	$36,000	$18,000	$48,000
M.Arch./MUD	-	-	-	-
MUD	$12,000	$36,000	$24,000	$42,000
Total	**$80,000**	**$234,000**	**$126,000**	**$292,000**

Faculty resources required

Program	2019-2020	2024-2025
M.Arch. I	1	-
M.Arch. II	-	1
M.Arch. III (MS)	-	1
M.Arch./MUD	-	-
MUD	-	-
Total	**1***	**2***

*Note: The additional faculty lines will be needed to support the increased graduate enrollment. They would be tenure lines at the assistant professor level with an anticipated average starting salary of $80,000 ($240,000 total required).

Staff resources required

Program	2019-2020	2024-2025
M.Arch. I	1**	-
M.Arch. II	-	-
M.Arch. III (MS)	-	-
M.Arch./MUD	-	-
MUD	-	-

*Note: This staff position is needed to support the MUD program, which is located at the Center City Building (CCB). At present, there is no direct staff support of any kind for the MUD Graduate Program Coordinator, faculty, or students at the CCB. Salary: $35,000.
**Note: This staff position is needed to support the M.Arch. programs with regard to advising and recruitment and to support the Graduate Program Coordinator. Salary: $35,000.

Physical resources required

Program	2019-2020	2024-2025
M.Arch. I	-	-
M.Arch. II	-	Studio/Office Space*
M.Arch. III (MS)	-	-
M.Arch./MUD	-	-
MUD	-	Studio/Office Space**

*Note: As the MUD program expands, we will need additional studio and faculty office space at the CCB.
**Note: As the M.Arch. programs expand, we will need additional studio and faculty office space on campus. This additional space may be gained through access to redesigned studio spaces in adjacent buildings.

Belk College of Business

Prepared by Richard Buttimer, Associate Dean
Approved by Steven Ott, Dean

Graduate Enrollment Projections, by Program

Potential Growth by 2020

Program	Track	2020 Target
MBA	Part-Time	350
	Cohort/Innovation	40
MACC	CPA Track	130
	Tax Track (or M. Tax)	40
MS Math-Finance	Risk Management	50
	Financial Data Analytics	50
	Computational Finance	50
MS Econ	Economics/Econometrics Tracks	30
	Finance Tracks	50
MS Real Estate		30

PhD Finance		20
DBA		40
Management MS	(could be MBA variant)	75
Marketing MS	(could be MBA variant)	75
Total		1030

College-Level Resource Requests

Additional Information That Affects Enrollment Projections[60]

1. If enrollments are to be limited, describe the restrictions and the reasons for them.

We can grow from our current enrollments of 635 graduate students to about 675 students with current resources. Beyond that, we will need new resources. Required resources will include additional faculty and additional classroom space at CCB.

2. Indicate any new faculty positions/resources required to achieve the enrollment projections.

To achieve our target goal of 1000 graduate students by 2019, we will need 10 new faculty positions: seven tenure-track/research faculty members and three clinical faculty members.

3. Indicate any new student resources required to achieve the enrollment projections.

Our plan is to grow our graduate programs primarily at the master's level. We assume that all new student resources (such as scholarships or assistantships) will be generated by CBTI, and thus need no new student resources for this expansion.

4. Indicate any new support (staff) resources required to achieve the enrollment projections.

We will need three additional staff members to achieve our goal of 1000 students by 2019. These staff members will focus on recruiting out-of-market students for these programs.

5. Indicate any new physical (facility) resources required to achieve the enrollment projections.

We need additional classroom space at CCB. We currently have priority for nine classrooms, after 5 p.m. We can usually get 12 classrooms, but have been turned down for more classrooms that that in the evening. There are 22 classrooms in the building, but no more than 17 total have ever been allocated to academic classes in the evening. We can begin to run classes during the day, but to do that in any size, we have to provide "hoteling" office space in CCB where faculty can work during the time between classes. The current cubicle system is inadequate because the open design of the space is not conducive to work which requires concentration/quiet. Faculty members note that the current layout of the cubicle space prevents them from doing tasks such as prepping class, conducting research, or writing anything more than simple emails. If we had reservable, private offices available, faculty members could teach at CCB during the day and evening and still be productive during the time between classes.

6. Provide additional context as needed herein.

We believe that there is sufficient market demand to allow us to grow to 1000 graduate students (a 57% increase over our current enrollment of 635) by 2019. We have a demonstrated track record of strong growth in our graduate programs, and we have identified specific areas where we believe there is demand. The Belk College is highly efficient at generating both student credit hours (including graduate

[60] For additional details on the Belk College of Business' projections and resource requests, please refer to the appendix entitled, "Appendix_UNCC 2014 Graduate Enrollment Plan_Belk College of Business."

student credit hours) because we are able to teach in large sections and with very low ancillary costs (i.e., we do not need labs or other specialized equipment). To achieve this growth, we would need a modest increase in faculty and more access to classrooms in the CCB.

College of Computing and Informatics

Prepared by William J. Tolone, Associate Dean
Approved by Yi Deng, Dean

Graduate Enrollment Projections

Program	Level	2019-2020 Goals			2024-2025 Goals		
		Low	Target	Stretch	Low	Target	Stretch
Bioinformatics Apps	Certificate	12	24	26	24	28	30
Bioinformatics	Master's PSM	45	55	60	55	65	75
Bioinformatics	Doctoral	24	28	30	26	32	35
Bioinformatics Tech	Certificate	10	12	15	10	12	15
Health Informatics	Master's PSM	80	100	110	100	110	125
Health Informatics	Certificate	27	33	36	33	36	41
Computing & Info Systems	Doctoral CAIS	140	155	170	185	205	225
Computing & Info Systems	*Doctoral CS track*	*79*	*87*	*96*	*102*	*112*	*123*
Computing & Info Systems	*Doctoral SIS track*	*61*	*68*	*74*	*83*	*93*	*102*
Computing & Info Systems	*Doctoral BISOM track*[61]						
Computer Science	Master's	280	300	320	400	425	450
Architecture Dual Degree	Master's CS and SIS[62]						
Adv Database/Know Disc	Certificate	17	18	20	18	20	22
DSBA	Master's PSM	100	125	150	220	250	280
DSBA	Certificate	60	80	100	80	100	120
Mgt of Info Tech	Certificate	5	7	9	5	7	10
Game Design & Dev	Certificate	8	12	15	10	15	20
Info Security/Privacy	Certificate	12	14	16	12	15	18
Information Technology	Master's	150	180	200	225	250	275
Total		**970**	**1143**	**1277**	**1403**	**1570**	**1741**

College-Level Resource Requests

Additional Information that Affects Enrollment Projections

[61] BISOM analysis included in BCOB.
[62] Dual Degree students are enrolled in either MSCS or MSIT.

1. If enrollments are to be limited, describe the restrictions and the reasons for them.

CCI graduate enrollment is limited not by projected demand, but by resourcing (i.e., faculty, staff, student and physical).

2. Indicate any new faculty positions/resources required to achieve the enrollment projections.

To hit enrollment projections, additional tenure-track faculty lines are required. Projections for 2015 assume five new faculty lines. Projections for five years assume 20 (5+17) new faculty lines – two BiG, 10 CS, and 10 SIS. Projections for 10 years assume forty (5+17+22) new faculty lines – four BiG, 20 CS, and 20 SIS. Note: While some part-time/adjunct faculty can be leveraged to support the increased enrollment, this is not a robust strategy for graduate enrollment growth.

3. Indicate any new student resources required to achieve the enrollment projections.

For CCI, student resources are primarily technical in nature. Projections for 2015 assume a $750K investment in computing, storage, and network infrastructure. Projections for five years assume annual investment (years 2-5) of $350K to refresh, scale and expand computing/storage capacities and services. Projections for 10 years assume annual investment (years 6-10) of $500K to refresh, scale, and expand computing/storage capacities and services. These costs are separate from annual operating, support and licensing costs for CCI computing services.

4. Indicate any new support (staff) resources required to achieve the enrollment projections.

To support enrollment projections, additional staff positions are required. Projections for 2015 assume two new administrative staff positions and a new associate dean position. One administrative staff position will provide dedicated operational support to graduate program coordinators and facilitate student admission and matriculation processes. A second administrative staff position will centralize program assessment, recruitment, and retention activities while working with coordinators and faculty on program governance activities. The new associate dean position will allow the college to align leadership with its teaching, research, and service/administration/outreach activities. The college is currently filling a vacant associate dean position – targeting the primary duties for this position to oversight of academic programs. Additionally, research and service duties will be required of this associate dean. Adding a new associate dean position will allow the college to optimize roles and responsibilities of its associate deans, and thus better support all of its academic programs. Projections for five years will require one additional staff position dedicated to student advising and progression, and to operate the internship programs that are a part of the PSMs. Projections for year 10 assume three additional staff positions to scale student support.

5. Indicate any new physical (facility) resources required to achieve the enrollment projections.

To support CCI enrollment projections, substantial new physical (facility) resources are required. Currently, the college is at capacity for office space in Woodward Hall for faculty and staff. New office space (five to 10 offices) is necessary to support 2015 projections. A substantial expansion of office space (25 offices by year five; 25 additional offices by year ten) is necessary to support five- and 10-year projections. Research laboratory resources also must grow to support the five- and 10-year PhD student projections. (Current research laboratory space will support 2015 projections.) More analysis is needed to determine specific requirements for additional research space. A substantial increase in classroom space is required to accommodate the added instructional sections. Five- and 10-year projections will require additional instructional laboratories and server room space. More rigorous analysis is required to quantify these requirements.

6. Provide additional context as needed herein.

See the attached spreadsheet for graduate program specific enrollment projections.

College of Education

Prepared by Dawson R. Hancock, Associate Dean
Approved by Ellen McIntyre, Dean

Graduate Enrollment Projections, by Program

		2019-2020 Goals			2024-2025 Goals		
Program	**Level**	Low	Target	Stretch	Low	Target	Stretch
Autism Spectrum Disorders	Certificate	38	41	44	41	44	47
Teaching Engl as 2nd Lang	Master's	115	118	121	118	121	124
School Counseling	Certificate	12	14	16	14	16	18
Child & Family Studies	Master's	6	8	10	8	10	12
Instructional Sys Tech	Certificate	18	20	22	20	22	24
Instructional Sys Tech	Master's	8	10	12	10	12	14
Counseling	Master's	117	120	123	120	123	126
Counseling	Doctoral	9	11	13	11	13	15
Curriculum & Instruction	Doctoral	12	14	16	14	16	18
Educational Leadership	Doctoral	10	12	14	12	14	16
Elementary Education	Master's	25	27	29	27	29	31
Elementary School Mathematics	Certificate	13	15	17	15	17	19
Child & Family Devl	Certificate	14	16	18	16	18	20
Art Education(K-12)	Master's	9	11	13	11	13	15
Early Childhood Ed (B-K)	Master's	8	10	12	10	12	14
Elementary Education	Master's	25	27	29	27	29	31
English as 2nd Lang(K-12)	Master's	27	29	31	29	31	33
Foreign Language Education	Master's	9	10	11	10	11	12
Middle Grades & Sec Educ	Master's	118	121	124	121	124	127
Middle Grades Ed (6-9)	Master's	12	14	16	14	16	18
Secondary Educ (9-12)	Master's	12	14	16	14	16	18
Special Education (K-12)	Master's	20	22	24	22	24	28
Play Therapy	Certificate	8	10	12	10	12	14
Alternative Licensing Cnt	UND	37	39	41	39	41	43
Reading Education	Master's	12	14	16	14	16	18
School Administration	Master's	12	14	16	14	16	18
School Admin	Certificate	14	16	18	16	18	20
Spec Ed-Acad-Int Gift	Certificate	8	10	12	10	12	14
Special Education	Master's	12	14	16	14	16	18
Special Education	Doctoral	4	5	6	5	6	7

Subs Abuse Counseling	Certificate	12	14	16	14	16	18
Teaching	Certificate	617	619	621	619	621	623
Teacher Licensure-Spec Ed	UND	12	14	16	14	16	18
Total		**1,385**	**1,453**	**1,521**	**1,453**	**1,521**	**1,591**

College-Level Resource Requests

Information that Affects Enrollment Projections

The College of Education enrolls over 3000 undergraduate and graduate students in professional education programs. Our programs are nationally accredited (NCATE, CACREP) and approved by the North Carolina Department of Public Instruction. Energetic, responsive, fast-growing, diverse, and effective are adjectives that describe the College and the faculty and staff who support our programs. We serve traditional and non-traditional students on campus, online, and at distance education sites throughout the region. Completers of our programs routinely report that their experiences in our College are challenging and meaningful and lead to rewarding careers in teaching, counseling, and educational leadership in both school and non-school settings.

Although the College's accomplishments have been many, we are currently encountering significant challenges that are negatively impacting our ability to attract high-quality students to our programs. One challenge has been the increase in the number of institutions of higher education in our region that are attracting potential candidates. Many of these institutions are attractive to some candidates because they have fewer requirements for graduation. For example, in the past five years, Wingate University has created education programs, many of which offer virtually open enrollment, that have directly impacted our ability to attract new students. Similarly, Boston-based Northeastern University has established satellite sites in the Charlotte area that are siphoning students away from our education programs. Even our sister State institutions (e.g., North Carolina State University, Appalachian State University) have established distance education locations in the geographic vicinity of Charlotte that has traditionally been served exclusively by UNC Charlotte.

In addition to the traditionally delivered programs, there has been a proliferation of 100%-online programs that are attracting some students who would otherwise enroll in our education programs. For example, in the past few years, the University of Phoenix, Nova, Capella, DeVry, and Walden Universities have created 100%-online education programs at the graduate levels that have directly challenged our ability to attract candidates, even to our 100%-online and hybrid programs. Ironically, we have even found ourselves competing for students who enroll in online programs offered by our sister institutions in the UNC system (e.g., East Carolina University, Western Carolina University).

Recent legislative mandates in North Carolina have made it difficult to attract graduate students, also. For example, our elected officials recently eliminated the 10% pay increase historically associated with attainment of an M.Ed. degree in a teaching field. This change has resulted in a precipitous decline in enrollment in our M.Ed. programs by teachers with bachelor degrees. The lack of pay increases the past few years for all teachers in North Carolina has also detracted from our goal of preparing more and better teachers to support the educational needs of future generations of schoolchildren.

It is in light of this context that the College of Education appreciates the Graduate School's current efforts to identify specific areas in which we need support and resources with which to attract new

students to our graduate programs. Furthermore, we appreciate Eduventures' efforts to provide information with which we can make data-based decisions about programs that we would like to grow in the future. Like our Chancellor, we are committed to increasing the percentage of graduate student enrollment in our College to 35% in future years. Although not exhaustive, the list of programs identified below identifies the areas that we believe are best positioned to grow in the near and long term if provided appropriate quantities of faculty, students, staff, and space.

Teaching English as a Second Language – Data provided by the U.S. Bureau of Labor Statistics indicate that the number of English language learners in North Carolina will increase significantly in the next decade. The increase in the number of school-age children for whom English is not their native language will necessitate a need for more teachers prepared to meet the educational needs of these children. Furthermore, as evidenced by the data provided by Eduventures, the 17% projected growth in jobs from 2012 to 2022 of people who need the support of teachers with skills in teaching English as a second language suggests that additional faculty, staff, and space will be required at UNC Charlotte in this area. Because only five institutions of higher education in North Carolina provide advanced degrees in this area, UNC Charlotte is well positioned to be able to attract many new candidates into this program. Based on these data, the table below depicts the College of Education's specific needs in order to increase enrollments in Teaching English as a Second Language.

Teaching English as a Second Language Totals

	Low Goals		Target Goals		Stretch Goals	
Projections	5 Years	10 Years	5 Years	10 Years	5 Years	10 Years
Fall Enrollment Goals	115	118	118	121	121	124
Faculty resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	4	6	6	8	8	10
Student resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Staff resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Physical resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2 rms	3 rms	3 rms	4 rms	4 rms	5 rms

Autism Spectrum Disorders – Data produced by the National Institute of Mental Health recently revealed that as many as 1 in every 60 children in the U.S. has an autism spectrum disorder. This statistic represents a significant increase in the number of children diagnosed with a disorder in the last twenty years. Locally derived data suggest that the incidence rate in North Carolina may be even more profound than the national average. These national and state data reveal the strong need for teachers with expertise in working with children with autism spectrum disorders. In addition, data produced by Eduventures project an 11% increase in the next 10 years in the number of jobs that will be needed in North Carolina in areas related to autism spectrum disorders. Because few institutions of higher learning in our state offer educational programs in this area, UNC Charlotte is well positioned to capitalize on the growing demand for teachers with expertise in autism spectrum disorders. Based on these data, the table below depicts the College of Education's specific needs in order to increase enrollments in Autism Spectrum Disorders.

Autism Spectrum Disorder Totals

Projections	Low Goals		Target Goals		Stretch Goals	
	5 Years	10 Years	5 Years	10 Years	5 Years	10 Years
Fall Enrollment Goals	38	41	41	44	44	47
Faculty resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	4	6	6	8	8	10
Student resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Staff resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Physical resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2 rms	3 rms	3 rms	4 rms	4 rms	5 rms

Counseling – School counselors are retiring or leaving the profession in North Carolina at a faster rate than institutions of higher education are able to replace them. In addition, national statistics reveal that the need for professional counselors to work with victims of abuse, drug and alcohol addiction, and mental health issues is growing exponentially. As revealed by the data provided by Eduventures, the need for professional counselors will grow in North Carolina alone by 16% in the next ten years. Both the school track and the clinical mental health track of our counseling program are extremely popular. Unfortunately, with our current quantities of faculty, staff, and space, we are able to admit only one-half of the qualified candidates who apply for admission to our Counseling program each year. With increases in resources with which to support the demand for our Counseling program, we could significantly increase our enrollment figures in order to achieve the "high goals" depicted in the table below.

Counseling Totals

Projections	Low Goals		Target Goals		Stretch Goals	
	5 Years	10 Years	5 Years	10 Years	5 Years	10 Years
Fall Enrollment Goals	117	120	120	123	123	126
Faculty resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	4	6	6	8	8	10
Student resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Staff resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Physical resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2 rms	3 rms	3 rms	4 rms	4 rms	5 rms

Educational Leadership (Higher Education) – The community track of the College of Education's EdD in Educational Leadership program was created in 2005 in response to community demands for an opportunity for middle to high-level organizational leaders in non-school settings to acquire the knowledge and skills necessary to perform well in their work environments. The program has been extremely well received and exists as the only one of its kind at a public university within a 90-mile

radius of Charlotte. Since 2005, we have admitted approximately 10 professionals per year from the health fields, banking communities, two- and four-year institutions of higher education, religious organizations, and non-profit agencies. Unfortunately, during that period, we have been able to hire only two faculty members to support the program. As a result, as revealed by the data provided by Eduventures, the number of degrees produced in 2012 in this field by UNC Charlotte was only nine of the 111 degrees offered in the state. With the additional faculty and space identified in the table below, the community track of the EdD in Educational Leadership at UNC Charlotte would have the capacity to enroll and graduate at least twice as many students per year.

Educational Leadership (Higher Education) Totals

	Low Goals		Target Goals		Stretch Goals	
Projections	5 Years	10 Years	5 Years	10 Years	5 Years	10 Years
Fall Enrollment Goals	10	12	12	14	14	16
Faculty resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	4	6	6	8	8	10
Student resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	4	6	6	8	8	10
Staff resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Physical resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2 rms	3 rms	3 rms	4 rms	4 rms	5 rms

Master of Arts in Teaching/Graduate Certificate in Elementary Education – The MAT/Graduate Certificate Program in elementary education is designed for those candidates who hold an undergraduate degree in a field other than elementary education. Building on a candidate's bachelor's degree, the MAT focuses primarily on developing and extending the pedagogical, leadership, and research skills needed by teachers. Demand for this program at UNC Charlotte has been significant, and the data produced by Eduventures indicate a 19% increase in the quantity of jobs in this field by 2022. Because our enrollments have been strong and because school districts in the state will need additional teachers in this field in the years ahead, the College of Education will require the following additional resources to meet the state-wide demand.

Master of Arts in Teaching/Graduate Certificate in Elementary Education Totals

	Low Goals		Target Goals		Stretch Goals	
Projections	5 Years	10 Years	5 Years	10 Years	5 Years	10 Years
Fall Enrollment Goals	13	15	15	17	17	19
Faculty resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Student resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Staff resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Physical resources required?	Yes	Yes	Yes	Yes	Yes	Yes

If YES, amount?	2 rms	3 rms	3 rms	4 rms	4 rms	5 rms

MEd in Middle and Secondary Education (Science, Technology, Engineering, and Mathematics - STEM) – The United States has become a global leader in part through the contributions of its scientists, technology experts, engineers, and mathematicians. Yet today, as reported recently by the U.S. Department of Education, that position has been threatened as comparatively few U.S. students pursue expertise in the fields of science, technology, engineering, and mathematics and due to an inadequate pipeline of teachers skilled in those subjects. As indicated by the data provided by Eduventures, the demand for teachers and specialists in these areas will increase in North Carolina in the years ahead. In response to this need, one of the strategic goals of the College of Education has been to prepare more students with the knowledge and skills in these areas. In order to accomplish this goal, we project the need for the resources identified in the table below.

MEd in Middle and Secondary Education (Science, Technology, Engineering, and Mathematics - STEM) Totals

	Low Goals		Target Goals		Stretch Goals	
Projections	5 Years	10 Years	5 Years	10 Years	5 Years	10 Years
Fall Enrollment Goals	118	121	121	124	124	127
Faculty resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	4	6	6	8	8	10
Student resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Staff resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2	3	3	4	4	5
Physical resources required?	Yes	Yes	Yes	Yes	Yes	Yes
If YES, amount?	2 rms	3 rms	3 rms	4 rms	4 rms	5 rms

The William States Lee College of Engineering

Prepared by Ron Smelser, Associate Dean, College of Engineering and Johnna Watson, Associate Dean, The Graduate School
Approved by Robert E. Johnson, Dean

Graduate Enrollment Projections, by Program

		2019-2020 Goals			2024-2025 Goals		
Program	**Level**	Low	Target	Stretch	Low	Target	Stretch
Engineering Management	MS	80	80	80	100	100	100
Construction and Facilities Management	MS	25	35	45	30	45	60
Civil Engineering	MSCE	58	70	90	61	89	143
Electrical Engineering	PHD	110	110	110	150	150	150
Electrical Engineering	MSEE	275	275	275	320	320	320
Infrastructure and Environmental Engineering	PHD	45	60	75	50	70	90
Applied Energy and Electromechanical Systems	MS	15	28	35	20	40	60
Fire Protection and Administration	M	10	20	25	15	25	35

Mechanical Engineering	PHD	64	64	64	74	74	74
Mechanical Engineering	MSME	90	90	90	120	120	120
Engineering	MSE	8	8	8	8	8	8
Lean Six Sigma	CERT	5	5	5	5	5	5
Logistics and Supply Chains	CERT	5	5	5	5	5	5
Energy Systems	CERT	5	5	5	5	5	5
TOTAL		795	855	912	963	1056	1175

College-Level Resource Requests

Detailed college-level resource requests were not provided by the College of Engineering.

College of Health and Human Services

Prepared by Jane Neese, Associate Dean for Academic Affairs
Approved by Nancy L. Fey-Yensan, Dean

Graduate Enrollment Projections, by Program

Program Name	Level	2019-2020 Goals	2024-2025 Goals
Community Health	Certificate	7	10
Health Administration	Master's	60	60
Health Services Research	Doctoral	23	31
Kinesiology	Master's	50	60
Public Health	Master's		
Nursing Advanced Clinical	Master's	91	97
Nursing Anesthesia	Master's	40	40
Nurs Anesthesia	Certificate		
Family Nur Prac	Certificate		
Nursing Admin	Certificate		
Nursing Education	Certificate		
Nursing Practice	Doctoral		
Nurs Systems/Populations	Master's	95	105
Nurs Systems/Populations	Certificate	20	26
Social Work	Master's	80	115
Public Health Sciences	Doctoral	20	40
Public Health Core Concepts	Certificate	10	15
Nursing Advanced Clinical	Certificate	6	6
Total		**502**	**605**

College-Level Resource Requests

Additional Information That Affects Enrollment Projections

1. If enrollments are to be limited, describe the restrictions and the reasons for them.

The Department of Public Health Sciences aspires to become a School of PH, which would require an additional four new master's concentrations and two new doctoral concentrations; collectively, 16 additional faculty are required to staff these concentrations. Thus, without additional resources, the graduate programs in Public Health Sciences will not grow. Several programs in nursing and social work will not grow without faculty as well as additional clinical sites.

2. Indicate any new faculty positions/resources required to achieve the enrollment projections.

The above faculty resources note the number of faculty positions (35.5 FTE) needed to increase the graduate student enrollment in CHHS. Five Full Professors ($645K); 11 Associate Professors ($1,135,200); and 20.5 Assistant Professors ($1,798,260) – 29% fringe included.

3. Indicate any new student resources required to achieve the enrollment projections.

In Year 1, two additional doctoral graduate assistants are needed ($36K) + GASP funding; in Year 5, we will need 16 additional doctoral graduate assistants + GASP funding and five MS graduate assistants (total = $353K); in Year 10, we will need an additional 20 doctoral graduate assistants + GASP funding and five MS graduate assistants ($425K)

4. Indicate any new support (staff) resources required to achieve the enrollment projections.

In Year 1, we will need an addition two staff (one administrative assistant and one Director of Assessment = $112,230); In Year 5 we will need six additional staff (two finance assistants and three administrative assistants = $233,490); in Year 10, we will need an additional three administrative assistants = $135,450). Fringe of 29% included.

5. Indicate any new physical (facility) resources required to achieve the enrollment projections.

In the above table, office space (rooms) is indicated. Calculations were based on three graduate students/office. Faculty and staff had individual offices for a grand total of 64 new office spaces. In addition to the office space, the SON graduate program will require an additional health assessment lab with live models and exam tables. The Kinesiology department would need an additional wet lab to accommodate faculty and student research. With the growth in public health graduate programs, the PHS Dept. will need a wet lab for environmental health.

6. Provide additional context as needed herein.

Most CHHS masters programs require external educational experiences such as internships or practica, which require staff to track contractual agreements with external agencies. In addition, growth in programs may be hindered by lack of available placement sites for students and available preceptors to assist students on-site. All graduate programs except the HSR doctoral program meet national disciplinary accreditation, which mandates student-to-faculty ratio.

College of Liberal Arts and Sciences

Prepared by Charles Brody, Associate Dean
Approved by Nancy A. Gutierrez, Dean

Graduate Enrollment Projections, by Program

Program Name	Level	2019-2020 Goals	2024-2025 Goals
Africana Studies	Certificate	13	17
Anthropology	Master's	25	25
Art Administration	Certificate	0	0
Biology	Master's	23	26
Biology	Doctoral	25	31
Chemistry	Master's	23	27
Criminal Justice	Master's	32	34
Communication Studies	Master's	25	30
Emergency Mgt	Certificate	0	0
English Education	Master's	8	20
English	Master's	79	83
Applied Linguistics	Certificate	10	20
Earth Science	Master's	34	36
Ethics & Applied Philosophy	Master's	20	25
Applied Ethics	Certificate	5	7
Cognitive Science	Certificate	15	20
Geography	Master's	35	45
Geog & Urban Regional Analysis	Doctoral	33	35
Gerontology	Certificate	15	15
Gerontology	Master's	20	20
History	Master's	55	60
Health Psychology	Doctoral	46	48
Liberal Studies	Master's	50	70
Latin American Studies	Master's	22	27
Applied Mathematics	Doctoral	50	60
Mathematics Education	Master's	7	10
Mathematics	Master's	25	30
Public Administration	Master's	85	85
Public Budget & Fin	Certificate	10	20
Nanoscale Science	Doctoral	27	40
Nonprofit Management	Certificate	26	30
Optical Sci & Engineering	Master's	8	10
Optical Sci & Engineering	Doctoral	48	50
Organizational Science	Doctoral	25	25
Applied Physics	Master's	13	15
Public Policy	Doctoral	35	35
Clin & Community Psychology	Master's	21	30

Industrial & Org Psychology	Master's	15	15
Religious Studies	Master's	22	24
Sociology	Master's	22	25
Spanish	Master's	34	44
Tech/Prof Writing	Certificate	12	12
Translating/Translation	Certificate	16	23
Urban Mgmt & Policy	Certificate	10	20
Gender, Sexuality & Wm St	Certificate	20	40
Total		**1144**	**1364**

College-Level Resource Requests

Additional Information that Affects Enrollment Projections

1. If enrollments are to be limited, describe the restrictions and the reasons for them.

Programs indicated a variety of reasons for limiting enrollments but lack of resources – student support, tenure-line faculty and space – was the main reason cited. The science programs, in particular, noted too little and inadequate laboratory space. A few (MPA and Health Psychology) mentioned accreditation issues. Most of the PhD programs project very little growth especially in the short run; only 55 additional PhD students are projected in the 10-year target figure.

2. Indicate any new faculty positions/resources required to achieve the enrollment projections.

The additional SCH produced by the target enrollments for one, five and 10 years suggests the need for six, 23, and 40 additional faculty members at those time points. (The projected need from departments was actually somewhat higher than these figures.) The amounts for the low and high goals were adjusted accordingly.

3. Indicate any new student resources required to achieve the enrollment projections.

Funding for graduate students, and, in particular, increasingly competitive graduate assistantships, was the single greatest need expressed by the chairs and program directors. For several years, raising existing GA stipends to a more competitive level (minimum of $10,000 for Masters and $16,000 for PhD), has been a CLAS priority. Departments have indicated difficulty recruiting students with the current stipend levels. The low goal for one year includes the adjustment to raise the minimum stipends and includes 20 $1,000 scholarships for certificate programs and MA programs that do not have assistantships.

4. Indicate any new support (staff) resources required to achieve the enrollment projections.

Several of the programs that are projecting growth indicated the need for additional support staff, and some of the interdisciplinary programs that expect growth are currently sharing a single staff member. The additional enrollments for one, five and ten years require one, five and nine additional support staff.

5. Indicate any new physical (facility) resources required to achieve the enrollment projections.

Space is needed for growth in all programs except, perhaps, the certificate programs. Chairs and directors indicate the need for additional office space for new faculty and GAs. The science departments (especially Chemistry and Geography & Earth Sciences) cite the need for more and improved lab space. CLAS has no additional space available, and no new buildings are on the near-term horizon. No realistic estimate can be provided to provide the additional space for up to 500 new graduate students, 50 new

faculty and nine staff across our nearly 50 graduate programs.

6. Provide additional context as needed herein.

Since the recession of 2008-09, undergraduate major enrollments in CLAS have increased by nearly 30%, yet the number of full-time faculty has declined slightly. Moreover, the number of tenure-line faculty has been decreasing more rapidly, and more lecturers have been hired in their place. While lecturers contribute significantly to the undergraduate teaching mission, more tenure-line faculty are needed to expand the graduate and research missions of the College. Chairs and program directors stressed this need as well as the fact that it is less than ideal to attempt to project graduate enrollments without simultaneously considering the increasing undergraduate enrollment. Finally, these projections only consider existing graduate programs and not any new programs that might come online, such as professional master's programs or planned doctoral programs in the area of digital humanities.

The Graduate School

Prepared and Approved by Tom Reynolds, Dean

Graduate Enrollment Projections, by Program

		2019-2020 Goals			2024-2025 Goals		
Program	Level	Low	Target	High	Low	Target	High
Health Informatics	Master's PSM	80	100	110	100	110	125
Health Informatics	Certificate	27	33	36	33	36	41
DSBA	Master's PSM	80	110	100	110	125	150
DSBA	Certificate	27	36	33	36	41	50

College-Level Resource Requests

Additional Information That Affects Enrollment Projections

1. If enrollments are to be limited, describe the restrictions and the reasons for them.

For both the Health Informatics and DSBA programs, growth will be limited primarily by access to faculty. In theory, the program could expand class sizes or reach out to adjunct faculty to create additional sections of popular courses to expand capacity. The reality is that for both the College of Health and Human Services and the College of Business, there are limitations due to respective accreditation standards. For the MHA program, class size is particularly important, and for the MBA and Business programs, there is a requirement for full-time faculty to teach courses.

2. Indicate any new faculty positions/resources required to achieve the enrollment projections.

Related to comments above, full-time, tenured faculty are required for growth.

3. Indicate any new student resources required to achieve the enrollment projections.

Assistantships and aid will facilitate recruitment of quality candidates.

4. Indicate any new support (staff) resources required to achieve the enrollment projections.

We have proposed a new combined Student Services Coordinator for the DSBA and HI programs to support day-to-day administrative needs and an Administrative Assistant to support the DSBA Program Director, the Graduate Center Director, and the larger DSBA Academic initiative. In addition, the PSMs requirement for professional skills/PLUS course, combined with the large enrollment and the cross-curricular nature of the programs, argues for a full-time Curriculum Specialist. That position would not only develop and deliver PLUS courses, but would also develop and coordinate interdisciplinary curriculum within the program and between departments.

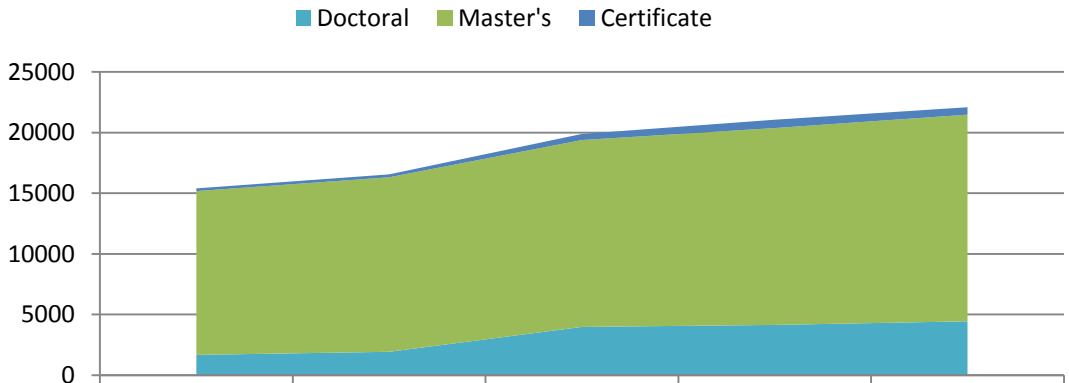
5. Indicate any new physical (facility) resources required to achieve the enrollment projections.

A key obstacle for the interdisciplinary programs is a central location, a hub where faculty, students, and industry partners can work and collaborate. We will need a central administrative space, with faculty offices, study and collaboration space. In addition, an interdisciplinary lab space will be required that gives all stakeholders access to cutting-edge technology and software for research.

Program Prioritization by Graduate Level

According to the National Center of Education Statistics' (NCES) Integrated Postsecondary Education Data System (IPEDS), degree conferrals in North Carolina for doctoral programs have grown by 28% since 2008, while master's degree conferrals have grown by 6%. While certificate conferrals have grown by 29% in the same time period, examining certificate conferrals through IPEDS is less reliable than other degree levels;[63] therefore, more research would need to be conducted to accurately evaluate the certificate market.

Degree Conferral Headcount Growth in North Carolina between 2008 and 2012, by Degree Level



	2008	2009	2010	2011	2012
Certificate	218	237	503	686	613
Master's	13508	14392	15410	16234	17037
Doctoral	1674	1928	3980	4146	4445

[63] While all information in IPEDS is self-reported by institutions and required for those receiving title IV funding, institutions are not required to report data on certificates. Further, many of these programs are non-credit or completed in addition to a master's degree; therefore, it is less likely that institutions accurately report information on these programs to IPEDS. In order to assess the market for certificate programs, primary research methodologies are advised.

Dashboard Scorecard

Name of Metric	Metric Definition	Rating 1	2	3
Supply to Demand	Comparison of five-year CAGR of degree conferrals to five-year CAGR of number of providers	Supply > Demand	Supply = Demand	Supply < Demand
Competition	Number of providers reporting conferrals	Lowest quartile of providers	Middle quartiles of providers	Highest quartile of providers
Market Size	Overall size of the market (e.g., number of conferrals reported in 2012)	Lowest quartile of market size	Middle quartiles of market size	Highest quartile of market size
Labor Demand	Number of jobs projected in 2022	Lowest quartile of projected jobs	Middle quartiles of projected jobs	Highest quartile of projected jobs

Name of Metric	Metric Definition	Rating 1	0
Fit in Portfolio	Whether UNC Charlotte reported degrees to the CIP code in 2012	UNC Charlotte does offer the program	UNC Charlotte does not offer the program

About Eduventures

Eduventures is the industry leader in research, data, consulting, and advisory services for the higher education community. For 20 years, college and university leaders and education industry providers have looked to Eduventures for innovative and forward-looking ideas, for insights into best practices, and for help with making the strategic and operational decisions vital to their success. More about Eduventures can be found at www.eduventures.com.