**Annual Report of the Graduate School 2023-24**

**The Graduate School's Efforts Devoted to Advancing the University's Strategic Plan:**

**Wolfpack 2023: Empowering the Extraordinary**

The Graduate School has had a productive year on a variety of fronts. We continue to pursue a broad range of initiatives that involve the life cycle of graduate students from recruitment through graduation and beyond. We also continue to develop a wide range of programming, approaches, and technology-drive elements to enhance the experience of our graduate students. The highlights, although by no means all of these efforts, are outlined in the report below. We have placed these items in the primary goal that they address, but, given the nature of our holistic work, many of them encompass elements of numerous goals.

## *Goal 1: Empower students for a lifetime of success and impact.*

- We continue to work with EAS to roll out the degree audit for graduate degree programs. This approach has been used at the undergraduate level for quite a while, it is much more complicated at the graduate level given the range of approaches to curricula in both master's and doctoral programs. At this point, an academic planner page and committee page are also being created in SIS. Although this overlaps with Goal 5, given the important role these elements will play in students determining a successful pathway to their degrees, it is included here.

- Developing an annual review platform for doctoral students. Although we have always required annual reviews, it is currently very difficult to assess whether these have been done by an advisor or committee, and we know that in many cases this is not happening.

The lack of review has created too many instances where students and advisors are not effectively communicating, especially when expectations are not being met, and can and has led to students being suddenly dropped by their advisors with little warning. The new application will be launched in Spring 2025.

- Developed an initial set of guidelines around the use of AI especially in the context of doctoral dissertations and master's theses. This was approved by the Administrative Board of the Graduate School this past May.

## Goal 2: Ensure preeminence in research, scholarship, innovation and collaboration.

- The Graduate Student Support Plan (GSSP) provided tuition and health insurance support to over 3500 students for a total cost of $66.7M (~70% or $46.5M was funded through Provost Allocations). GSSP continues to provide critical financial resources to attract and retain top graduate students (primarily doctoral students) to support our research and teaching mission.
- Although this certainly has significant overlap with Goal 1, in 2023-24, The Graduate School administered interdisciplinary and multidisciplinary fellowships, traineeships, and award programs estimated at $9.9 million across 38 projects. This included $1.8 million for 14 matching commitments provided by the Office of the Provost.
- Provost's Fellowships and University Graduate Fellowships were used to recruit a total of 265 top applicants to our doctoral programs. In addition, The Graduate School awarded 28 Diversity Recruiting Fellowships ($56K). A total of 171 applications from students requesting support under the Diversity Enhancement Grant program were received -- 64

grants averaging $2,314 each were awarded using UNC Campus Scholarship funds designated for in-state doctoral students with financial need and another 29 grants averaging $1258 each were awarded to students using Diversity Graduate Assistance Grant funds.

- The Graduate School received 50 nominations for the Mansour Doctoral Fellowships. Awards in the amount of $10,000 each were made to 22 top incoming international students representing 14 countries. We also welcomed 50 incoming students as the second cohort of the Goodnight Fellowship program. In addition, 24 fellows from the initial cohort of 30 continued to receive funding with six having completed their PhDs.

- Four PhD students were recruited using funds provided by the Office of the Provost for the SREB Doctoral Scholars Program. There are currently 20 SREB Doctoral Scholar slots, and to date 9 have received their PhDs.

## *Goal 4: Champion a culture of equity, diversity, inclusion, belonging and well-being in all we do.*

- In addition to the various fellowships and grants mentioned above, The Graduate School engaged in over 30 recruitment events, including at HBCUs and MSIs. These consisted of both in-person and virtual events. During the same period, David Shafer met with prospective students via Zoom one-on-one, and made a range of presentations to various groups of potential applicants we are recruiting to NC State.

*Goal 5: Drive institutional effectiveness through transformative technologies, cutting-edge processes and actionable data.*

- Restructuring the entire process of graduate program search for potential applicants. This has involved completely rethinking how we are undertaking the process with a focus on making this as effective and as streamlined as possible, especially for prospective students. The new approach uses the catalog as the basis for this and gives those interested in our graduate programs a much more informative and accessible way to not only view elements like program requirements, but also to find contact information and deadlines.

- Launched the new Smartsheet Fellowship system which fully streamlined the fellowship nomination, review, approval and payment process for over 16 fellowships managed by the Graduate School. The new system made a wholesale change in managing fellowships, providing prompt communication of nomination status, and significantly improving the payment process.

- The admissions transcript validation process has been updated to streamline the student's admission experience and the ability to readily identify those students entering doctoral programs who have completed master's degrees. Now final degree stated transcripts are noted during the admissions process and loaded into SIS. This indicator drives the student checklist item in SIS in addition to the previous master's credit flag used for a variety of processes.

- A new liaison dashboard page has been implemented in SIS to display checklist items, documents, etc. This is a page that will be expanded over time to become a one-stop shop for administrators allowing ready access to a broad range of data and milestones associated with graduate student success.

- There were several other changes that were implemented to ensure better tracking of student progress. These include: 1) a new committee page that has been implemented in SIS; 2) as we progressively move an increasing number of our forms and processes away from paper, the addition of external and interdisciplinary committee members as well as consultants to advisory committees is now a paperless process and it also includes their CVs which are then routed for approval; and 3) an updated milestone process. They will now display "just in time" as opposed to being loaded immediately upon admission. This will more accurately reflect students' progress towards degree.

- We have been moving from the Plan of Work to a new degree audit process that, once it is in place for all programs, will make many aspects of overseeing programs and graduate certificates much more efficient. At this point, over half the graduate programs have been converted to the new degree audit.

- The Professional Development Team, with the expertise of the Graduate School's IT team, has established a new registration system using Smartsheets which works well in terms of tracking attendance and collecting data.

***Goal 6:*** *Be recognized as the leading university for innovative partnerships, entrepreneurial thinking and applied problem-solving.*

- Given the importance of interdisciplinary efforts, The Graduate School has been playing a lead role in conjunction with the Provost's Office to develop and implement cutting-edge programs. This includes the launching of the Master's of Science in Fundamentals of Data Science (FDS) which is housed under The Graduate School. This has also involved the develop of elements, such as an inter-college curriculum committee to play in overseeing the initiation of these programs' curricula and new processes around the financing of these degrees to help ensure their success. We are also working very closely with the group developing the new master's in Global One Health, another degree that due to its interdisciplinarity will be housed in The Graduate School.

- Collaborations of various types are critical the effective and successful functioning of The Graduate School. In the realm of professional development, we regularly partner with the Libraries, DELTA, the University Career Center, and the embedded career counselors. A further example of this that extends nationally, under the auspices of the NSF Innovations in Graduate Education grant that we received, our Accelerate to Industry (A2i) network has expanded to 37 partnering institutions. It also involves novel collaboration with industry, and new companies, such as Toyota Battery Manufacturing, Hitachi Energy and Milliken, have engaged with our A2i Immersion Week.

## *Goal 7: Elevate the national and global reputation and visibility of NC State.*

- In the past year, we have built on several new initiatives for the recruitment of international students, including:
  - Sending two delegations to Vietnam to meet with counterparts at the Hanoi Museum of Science and Technology and the Ho Chi Minh City University of

Science. Important connections were made there between administrators and faculty as well as meetings held with students interested in applying to NC State.

- o Meetings with various national agencies in Indonesia who want to send their employees to NC State to obtain PhDs. The central government has a goal of getting their staff to 10% PhD-holding and have devoted $200M to that effort. NC State recently was informed that for at least one of those agencies, they have approval for send students to a group of programs spanning the colleges of Engineering and Science.

- o Recruitment trips to Africa and Latin America to focus on recruiting graduate talent in Ghana, Nigeria, Colombia, and Brazil.

- o For all of these countries, we are already seeing the impacts of that recruitment in terms of an increase in the number of applications from them.

**Administration: Changes and Achievements**

Changes: The Graduate School had two new hires necessitated by the retiring of one staff member and one from an employee who transitioned to another job. This includes the retirement of very long-time Liaison Peggy Olive (+50 years in the position). She was replaced by Jordan Smith, previously in EMAS. The other hire was Kelly Rownd, who is our Director of Career of Services; she comes to us from the Career Center at LSU.

Selected Achievements:

- Dean Peter Harries serves as Treasurer of the Conference of Southern Graduate Schools (CSGS) and gave a number of presentations at several Council of Graduate Schools

meetings, for CSGS, and also an NSF IGE conference. He also published a paper and has two further manuscripts under review. In addition, he serves on a broad spectrum of university committees, from the Mental Health Implementation Team focused on advising to the Data Governance Committee to the University Housing Committee.

- Associate Dean Pierre Gremaud has given several research presentations; he was one of the leaders of the SAMSI program on numerical analysis in data science and served on NSF panels.

- Assistant Dean Lian Lynch continues to serve on a variety of standing committees including the SIS Steering Team, the Academic Calendar Committee, and Commencement Advisory Committee. In addition, she also has served on the Student Mental Health Task Force Implementation Team for Policies & Regulations as well as that for Academic Advising.

- Assistant Dean David Shafer has given many presentations at various recruitment events across the state and nationally over the past year. He also serves on various boards including those for the Southern Regional Education Board (SREB) Next Quarter Century Advisory Committee and on the Executive Board for the Conference of Southern Graduate Schools Membership Committee. Finally, he received the Southern Regional Education Board Doctoral Scholars Program Extra Mile Award, which speaks to his long-term dedication for supporting the recruitment, retention, and success of graduate students.

- Assistant Dean Savita Sharma serves on the Enterprise Applications Committee and was invited to be the Chair-elect for the Committee. Members of The Graduate School's IT Team presented their work at numerous conferences/seminars, including at the 2023 Southeast SAS User Group and at the North Carolina Association for Institutional Research Conference.

**Recommendations:** One of the biggest issues that we and others are facing in many aspects of our lives has been having and will continue to have a substantial impact on the academic enterprise is the rapid development of the tremendous power AI. It has begun to transform many aspects of the academic enterprise, we need to continue to think about how it can be effectively integrated with integrity into graduate education. We are also devoting significant thought to how we effectively train our graduate students to be adept at using it as a tool as many of the careers our students will pursue will require a sophisticated use of these tools. Therefore, it is critical for the institution to develop approaches to the use of AI that promote its use as a tool and simultaneously train students to use the range of tools that exist to enhance creativity and innovation rather than rely on it as driver.

We also need to address the nature of the Graduate Student Support Plan (GSSP) within in the context of a dramatically changed model for appropriation funding in combination with Engineering expansion. The funding model under which it was initially formulated was dramatically different, although the critical importance of graduate students, especially doctoral students, to the research expectations remains.

**Concerns:** The long 'tail' of post-COVID conditions remains a significant challenge for graduate education. The repopulation of campus has been quite gradual, and the reduction of 'accidental learning', which is a critical component of especially doctoral education, remains a challenge for NC State and virtually every other institution.

Another concern revolves around the challenge that many institutions are facing in terms of maintaining graduate enrollment. NC State's graduate population continues to grow and the excellence of its graduate programs remains a strong draw for students seeking graduate degrees.

However, given the reduction in college-age students within the US, it is likely that this presages a reduction in students seeking to enroll in graduate programs. This is an issue that demands that we remain vigilant in maintaining our recruitment efforts and working to continue to offer outstanding graduate programs.