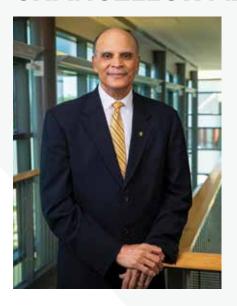


EXECUTIVE SUMMARY

A&T PREEMINENCE: TAKING THE MOMENTUM TO 2023

A MESSAGE FROM CHANCELLOR MARTIN



What began as an academic year like many others before turned into something altogether different, as the backdrop for 2019-2020 abruptly changed from classroom instruction and campus life to online coursework and extraordinary measures to keep COVID-19 at bay.

That was the dynamic faced by thousands of colleges and universities across America this past year. I am pleased to report that few rose to the occasion as successfully as North Carolina Agricultural and Technical State University.

From starting the fall term as America's largest historically black college or university (HBCU) for the sixth consecutive year, as well as its top-rated public

HBCU for the second straight year, to completing the school year with all of our students studying remotely, it was a year that required us to adapt quickly, move nimbly and be especially attentive to detail.

Along the way, our land-grant university established new benchmarks for academic excellence and maturity as a doctoral research institution. We added to our four centers of research excellence with a new Center for Excellence in Transportation, a partnership with the North Carolina Department of Transportation that recognizes A&T's extraordinary strengths in autonomous vehicles. We renamed one of our most prominent and productive schools after one of our most generous supporters: The Willie A. Deese College of Business and Economics, the top public business school in the nation among public HBCUs.

Thanks to the support of all our donors, our Campaign for North Carolina A&T surpassed its initial, \$85-million goal, and set a new, \$100-million goal to be completed by Dec. 31, 2020, making a significant difference in student and faculty support, academic programs and facilities. On the athletics side of the university, A&T notched its third consecutive national black college football championship, winning the Celebration Bowl in Atlanta, and multiple conference championships in track and field, adding to that program's growing national profile.

There were, of course, many other accomplishments, which you will see in the pages ahead, any one of which would be remarkable in a normal year. Even as we faced down the challenges that coronavirus brought, we never stopped moving forward, thanks to the extraordinary efforts of our students, faculty and staff.

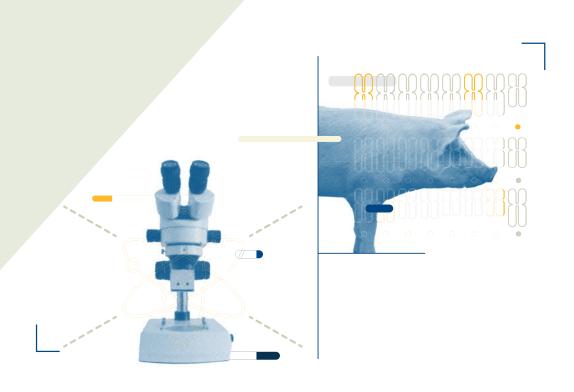
I hope you will enjoy reading this recap of some of the most significant points of progress and learning more about the many ways that A&T is growing and developing. With 2019-20 as a milestone, our sights are set even higher for the future.

Sand J. Bartin, Sc.

GOAL

Excellence in Teaching, Research and Engagement

North Carolina A&T will commit to excellence in teaching, research and student success.





WATERMAN

PAR EXCELLENCE

For more than a decade, **JENORA WATERMAN**, **PH.D**., has led students and research at North Carolina A&T in animal science, specifically functional genomics. This year, Waterman, an associate professor of functional genomics in the College of Agriculture and Environmental Sciences (CAES), was among the 17 leading faculty members across the state to receive the University of North Carolina System's Board of Governors (BOG) Award for Excellence in Teaching.

"Dr. Waterman is an excellent professor who shows commitment to the excellence of teaching her students and in researching how agricultural practices affect the animals and humans involved," said Provost and Executive Vice Chancellor for Academic Affairs Beryl C. McEwen. "She's a valuable resource for students and has remained committed to helping them reach their full potential in her courses, lab and the workforce."

Waterman's teaching style is one that engages students and teaches them to be thought leaders while inspiring students to become life-long learners.

"My goal as an effective teacher is to develop two of the most essential skills needed in today's global workspace - good communication and critical thinking skills," she said.

Her course content and assessments are hinged on building these two skills. For example, her students create original podcasts, participate in Socratic debates, and analyze relevant non-fiction books to critically analyze, communicate their thoughts, and apply information they learn.

"Dedicated, demanding, enthusiastic and caring, are the words I would use to describe her as a teacher," said Mohamed Ahmedna, dean of CAES. "When she speaks her enthusiasm for the students and the topic of discussion are both palpable."

A faculty member since 2008, Waterman earned her bachelor's and master's degrees in biology at Bennett College and N.C. A&T, respectively. Her doctorate degree in functional genomics is from North Carolina State University.

Each Excellence in Teaching awardee receives a commemorative bronze medallion and a \$12,500 cash prize.

TAKING FLIGHT

Powered by a four-year, \$8 million grant from NASA, an interdisciplinary, multi-institution team led by researchers at North Carolina A&T launched a project aimed at developing, testing and eventually deploying air passenger taxis for consumer use.

With the rapid development of autonomous flight vehicles—already in use for a variety of commercial purposes—industry experts predict it is only a matter of time before they are put to use to facilitate easy travel and decrease traffic congestion on the nation's roads. A widely circulated research paper last year forecast that market to expand to \$1.5 trillion globally over the next 20 years.

The project aims to speed that evolution, drawing on the deep vein of N.C. A&T expertise in both road-based and flying autonomous vehicles. A&T is already home to the Institute for Autonomous Control and Information Technology, a Department of Defense Center of Excellence in Autonomy known as TECHLAV and a select team participating in the prestigious AutoDrive Challenge sponsored by General Motors and the Society for Automotive Engineering.

"We won't have the luxury of physical space to build more roads as the populations in urban areas continue to grow," said **ABDOLLAH HOMAIFAR**, **PH.D**., principal investigator and a NASA Langley Distinguished Professor in the College of Engineering (COE). "I am excited for this collaboration as we are addressing real challenges in our society that require solutions that one group cannot provide alone."

A&T is the first historically Black college or university (HBCU) to lead a project for the agency's University Leadership Initiative. The grant is also the second-largest award the university has received in its history.

A&T's researchers are collaborating with colleagues at Purdue University and Georgia Tech, as a well as industry leaders Aurora Flight Sciences, Alaka'i Technologies Corp., General Atomics Aeronautical Systems and Northrop Grumman Corp.



HOMAIFAR

2019-2020 RESEARCH EXCELLENCE AWARDS

Seven faculty members were recognized by the Division of Research and Economic Development (DORED) for research contributions to their respective fields:





INTERDISCIPLINARY TEAM AWARD

SEC

SUN YI, PH.D., **SAMEER HAMOUSH, PH.D.**, and **YOUNHO SEONG**, **PH.D.**, represent three departments in the College of Engineering and collaborated on the Autonomous Robotic Non-Destructive Investigation (ARNDI) team. Non-destructive testing evaluates material properties and ensure structural integrity without causing damage. The team employs new algorithms based on artificial intelligence and uses advanced techniques and novel methods for structural modeling, analysis, robot control, testing, and system evaluation.



AWARD FOR INTELLECTUAL PROPERTY

ZHANG

LIFENG ZHANG, PH.D., nanoengineering associate professor at the Joint School of Nanoscience and Nanoengineering, received two U.S. patents in 2019 and filed three U.S. patent applications. He and his students participated in the National Science Foundation (NSF) i-Corps program, in which the core technology of the project used environmentally friendly bio-binder to surface-modify nanofillers, mixing the bio-binder with a polymer matrix to enhance sustainability and properties of polymer matrix composite materials.

Zhang's presentation on anti-fungal nanotechnologies at the 2019 Opportunity Meets Innovation: Reverse Pitch Challenge, sponsored by the Greensboro Chamber of Commerce and Launch Greensboro, created an opportunity to connect with Core Technology Molding Corp., Hexcel Corp. and BNNano Inc. to promote invention-related new nanotechnologies and facilitate commercial applications.



SENIOR RESEARCH OF THE YEAR AWARD

DESAI

Over the past 16 years, **SALIL DESAI, PH.D.**, industrial and systems engineering professor in the College of Engineering, has stablished an interdisciplinary research program with active collaborations across many academic institutions, national laboratories and industry sectors. His research focuses on the investigation and development of novel advanced manufacturing processes with a diverse application base. Desai conceptualized a novel direct-write process, which can deposit droplets ranging from micro- to nano-scale based on laser modulation.

NSF recognized and funded Desai's efforts through a prestigious CAREER award, enabling him to translate his conceptual idea into a viable nano/micro manufacturing process resulting in a U.S. patent. Through the university's spin-off commercial venture efforts, the innovation formed a start-up company seeking to expand his platform technology in the fields of semiconductor electronics, energy sector and biomedical devices.



YOUNG INVESTIGATOR AWARD

DENG

DONGYANG "SUNNY" DENG, PH.D., associate professor in the Department of Built Environment, College of Science and Technology, studies wastewater treatment, focusing on per- and polyfluoroalkyl substances (PFAS), or a group of man-made chemicals, chemical remediation and agricultural wastewater treatment. She strives to raise public awareness about emerging contaminants and their impact on the environment and seeks to mitigate the effects of those contaminants, alleviating public concern and benefit millions of people in the United States with clean and safe water.

Deng's research enterprise expanded successfully in only three years at the university. She received four grants and serves as the lead principal investigator for three of them and has three additional grant proposals pending. Deng published a book, has five publications in peer-

reviewed journals, two accepted conference proceedings, 15 oral and 10 poster presentations at regional and national conferences among other notable achievements. She also served as a proposal reviewer for NSF and the U.S. Department of Defense and has been invited by the Environmental Protection Agency to review an emerging contaminant proposal regarding PFAS in agricultural wastewater.



ROOKIE OF THE YEAR AWARD

BHOWMIK

ARNAB BHOWMIK, PH.D., assistant professor in the Department of Natural Resources and Environmental Design, College of Agricultural and Environmental Sciences, studies stewardship of natural resources like soil to combat global issues including climate change, food security, human health and environmental health. His research adds to the understanding of soil, plant, and microbial interactions, and of nutrient cycling in terrestrial ecosystems, and addresses grand challenges involving the nation's food security and environmental sustainability. One of Bhowmik's key accomplishments is successfully using biological indicators of soil health as a metric to compare a range of management practices that enhance soil conservation and contribute to greenhouse gas mitigation.





GASPARIAN

LEADING THROUGH CHANGE

A North Carolina A&T physics professor led a team at the Thomas Jefferson National Accelerator Facility that helped resolve one of physics' most interesting mysteries over the past decade: What is the actual size of a proton's radius?

The question has engaged leading physicists at top institutions around the world for years. Why? Gizmodo's Ryan F. Mandelbaum broke it down in a late 2019 feature:

"The proton is arguably the most important particle to our everyday lives, forming one of the three core components of atoms and determining elements' identities. That makes the values of its various properties extra important. Experimental disagreement over one of those properties, called the charge radius, kicked off a decade of increasingly precise measurements. Scientists have now released the results of a new measurement method, and they suggest the uncertainty is approaching an end."

Beginning in 2010, scientists thought they might be zeroing in on a new, more accurate measure of the proton radius. But measurements using different techniques yielded differing results over the ensuing 10 years. That's where **ASHOT GASPARIAN**, **PH.D.**, of N.C. A&T's College of Science and Technology comes in.



THERMOGRAPHIC EVALUATION-IMPROVED

In the never-ending effort to make air travel safer, one major area of focus is on evaluation methods for detecting defects in the body of airplanes. Plane manufacturers do that through the use of thermographic evaluation—a process that is about to become more precise, more versatile and more valuable, thanks to a new patented technology from North Carolina A&T.



SUNDARESAN

Awarded to mechanical engineering professor **MANNUR J. SUNDARESAN, PH.D.**, and his former advisee, Letchuman Sripragash, Ph.D., the patent is the sixth earned by Sundaresan in his 24-year career at N.C. A&T. Sripgragash is now an engineer at Siemens in Charlotte, North Carolina.

Their patent, "Normalized Defect Characterization of Pulse Thermographic Nondestructive Evaluation," protects an enhanced technology that can make correct evaluations regardless of the kind of material it is evaluating. It uses a unique normalization procedure to eliminate the need to know the age or type of the material being scanned.

The new patent raises to 44 the total number of patents awarded to A&T, with another 27 applications in process. A&T has spun off seven startup companies and licensed 16 patents for commercial activity beyond the university, as well.

MANAGING EXPECTATIONS

A burgeoning partnership between NBA superstar Chris Paul and North Carolina A&T bore new fruit for students at America's largest historically Black university.

The partnership launched in the fall with a master class on entertainment, media and sports for 200 students in the Willie A. Deese College of Business and Economics and the Department of Journalism and Mass Communication in the College of Arts, Humanities and Social Sciences. Paul and Harvard Business School Professor Anita Elberse, Ph.D., presented the course.

The master course, Special Topics in Management, is expected to become a permanent offering in the Deese College.

Representatives of the Chris Paul Foundation returned to N.C. A&T in February with leaders of Live Nation Urban, a division of the world's leading live entertainment company, to establish an internship pipeline between the university and the company.



"One of my goals for Live Nation Urban has always been to introduce young African American future executives to the live music Industry," said Shawn Gee, president of Live Nation Urban. "We are disproportionately underrepresented in this space, and it will take programs like these and partners like Chris and N.C. A&T to help change that narrative."

Paul said, "Access through education helps level the playing field and true leadership comes from knowledge. I'm looking forward to expanding the partnership with N.C. A&T and Live Nation Urban and seeing the future results of our efforts."

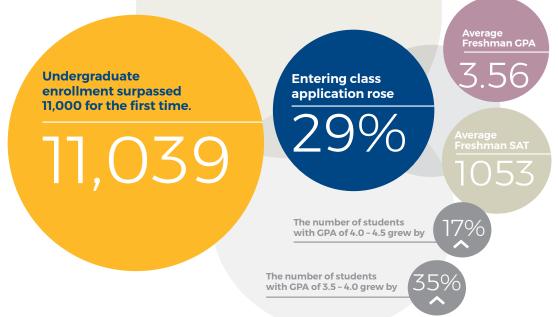
STRATEGIC GROWTH

North Carolina A&T's steady and strategic growth continued in the fall of 2019, setting another institutional record for enrollment with 12,556 students and establishing A&T as the nation's largest historically Black university for the sixth consecutive year.

But as is often the case with data trends, some of the more interesting stories emerged from beneath the topline. These undergraduate student trends were particularly good news for N.C. A&T:

- Undergraduate enrollment surpassed 11,000 for the first time. The new undergraduate headcount of 11,039 significantly exceeded the 10,000 goal by 2020 set for A&T in the university's previous strategic plan. The new plan envisions a total headcount of 14,000 by 2023, and A&T is positioned to meet that mark.
- A&T continues to attract exceptional freshman in record numbers. Applications not
 only increased by 29 percent for the entering class, students who enrolled carried
 an average GPA of 3.56, average SAT of 1,053 and average ACT of 20. The number of
 students with GPA of 4.0 4.5 grew by 17 percent, and students with a GPA of 3.5 4.0
 by 35 percent.

 Many entering freshman came to the university with college credit, with more than 31 percent of new students with credit beginning their A&T career classified as sophomores or juniors.





Public Service and Community Engagement

North Carolina A&T will elevate and expand public service and community engagement to create a premier educational experience that addresses global needs

As one of the state's two land-grant universities, North Carolina A&T has a mission of providing service to the state's counties and people. That mission was front and center during the novel coronavirus (COVID-19) pandemic, even as the university faced its own set of seismic changes.

Across N.C. A&T's colleges and administrative divisions, employees, students and alumni found ways to give back to people and communities around the state through sharing guidance and advice across a wide range of topics, making protective supplies, treating the sick and more.

A comprehensive list of more than 30 projects was shared with the Board of Trustees at its April 2020 meeting, and the Office of Alumni Relations shared on social media a growing list of "Aggies on the Front Lines of COVID-19" features that spotlighted various graduates working as physicians, registered nurses, nurse practitioners, clinical assistants and more.

Among the many fascinating people and projects, the N.C. A&T Cooperative Extension Service created a website for the public (https://www.ncat.edu/caes/cooperative-extension/covid-19/index.php) that makes expertise available for a wide range of needs to help consumers and farmers manage limited resources and stay healthy. The site includes



more than 30 tutorials, videos and how-to guides for topics ranging from making meatless meals to building a portable handwashing station tips on avoiding coronavirus scams. Thousands of users around the state have accessed the site. Specializing in small and family-owned farms and in rural communities, Extension Service maintains a physical presence in half of North Carolina's 100 counties.



North Carolina A&T will excel in resource stewardship, operational effectiveness and efficiencies.

ANOTHER RECORD YEAR FOR FUNDRAISING

North Carolina A&T raised a record \$18.1 million in FY 2020. The university's previous best fundraising year yielded \$15.6 million in FY 2018.

For FY 2020, nearly 11 percent of alumni made gifts to The Campaign for North Carolina A&T totaling \$8.5 million, both of which are institutional records.

The previously unmatched year grew the university's academic endowment to \$73.8 million, up \$5.3 million from FY2019, and its overall endowment and Real Estate Foundation assets to a combined \$86 million.

When the campaign began in FY 2014, N.C. A&T's endowment was roughly half that at \$43.8 million. Earnings on university endowments provide critical funding to support academic programming, student scholarships and financial aid, faculty salaries and more.

For public institutions, such as A&T, they can be a particularly critical sources of revenue, funding initiatives and opportunities not covered by taxpayer revenue.

RESPONSE TO PANDEMIC: TRANSITION

While the novel coronavirus (COVID-19) pandemic presented a plethora of challenges, one thing quickly became clear—the necessity to transition course instruction and the workplace to online delivery.

In February 2020, North Carolina A&T and its Student Health Center began to carefully monitor information from the Centers for Disease Control and Prevention (CDC) regarding the novel coronavirus (COVID-19) and took measures to provide for the safety of students, faculty and staff. As a global university with students and employees from around the world, North Carolina A&T made early decisions to transition from traditional classroom and work settings to ways to provide continuity and support of instruction and work in a virtual environment.

Prior to the pandemic, there were fewer than 400 online course sections. By mid-March, that number had grown to 2,800 with all instruction delivered online through Blackboard®. A comprehensive student support system called the Online Learner Support Commons also was established. These changes were accomplished in the space of one week and one week earlier than the UNC System's deadline for transitioning to online instruction.

University administrators and staff arranged to work remotely (telework) wherever possible, as part of a broader social distancing strategy.

		1	
		BEFORE	AFTER
EMPLOYEES TELEWORKING	\$	<1%	47 %
ONLINE COURSE SECTIONS		331	2,763
STUDENT HOUSING RESIDENTS		5,000	176
SPRING SPORTS SEASONS IN PROCESS		11	0



N.C. A&T STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

For the Fiscal Year Ended June 30, 2020	
Operating Revenues	
Student Tuition and Fees	\$78,671,603
Federal Appropriations	8,062,967
Federal Grants and Contracts	22,012,722
State and Local Grants and Contracts	1,774,182
Nongovernmental Grants and Contracts	1,874,858
Sales and Services	26,257,946
Interest Earnings on Loans	8,504
Other Operating Revenues	5,185,406
Total Operating Revenues	143,848,188
Operating Expenses	
Salaries and Benefits	181,503,615
Supplies and Services	80,608,418
Scholarships and Fellowships	22,917,240
Utilities	5,575,279
Depreciation	14,543,826
Total Operating Expenses	305,148,378
Operating Loss	161,300,190
Nonoperating Revenues (Expenses)	
State Appropriations	95,490,469
Student Financial Aid	46,727,292
Federal Aid - COVID-19	13,973,464
Noncapital Contributions	13,351,549
Investment Income (Net of Investment Expense of \$214,976.28)	3,908,965
Interest and Fees on Debt	(3,910,201)
Other Nonoperating Expenses	(622,769)
Total Nonoperating Revenues	168,916,869
Income Before Other Revenues	7,616,679
Other Revenues	
Capital Contributions	31,858,896
Additions to Endowments	6,669,739
Total Other Revenues	38,528,635
Increase in Net Position	46,145,314
Net Position	
Net Position - July 1, 2019	183,469,918
Net Position - June 30, 2020	\$229,615,232

Diverse and Inclusive Culture

North Carolina A&T will strengthen our campus community by fostering a more diverse and inclusive culture.

CHANCELLOR'S SPEAKERS SERIES

The Chancellor's Speaker Series features guests who bring their diverse ideologies and lifestyles to the North Carolina A&T community. The series also provides opportunities for students to interact with these individuals in small group settings as well as part of Q&A sessions.

For the fall 2019 installation ("Love the Skin You're In") on Oct. 3, Emmy-nominated actress/ LGBTQ+ advocate Laverne Cox, actress/singer/author/activist Amber Riley and model/singer/ actor/dancer Shaun Ross shared challenges they have faced, such as transsexuality, obesity and albinism, respectively.

The discussion delved into self-love, love toward others and relevant and timely topics on body image perception, stereotypes, personal values, the dynamics of social media and more, leading to a healthy, happy life. Licensed clinical psychologist and A&T alumna Raushaunnah "Dr. RJ" Johnson-Verwayne was the moderator.



2019-20 SCORECARD

		2019	2020
14,000	11,877	12,142	12,566
10,750	10,341	10,629	10,709
500	368	409	405
1,500	822	817	795
2,700	2,356	2,514	2,626
5,600	5,162	4,683	4,975
3,250	1,536	1,513	1,464
500	167	194	224
2,112	1,070	1,059	1,027
1,024	409	401	437
85%	78.6%	77.0%	79.4%
90%	77.6%	79.6%	79.9%
40%	25.4%	27.5%	33.9%
			47.7%
			52%
			1,959
	,		579
			*
			*
			/ 50
			456
,			1,131
118	/1	108	113
	400	4.00	
			453
			387
			66
			200
147	59	72	62
1:19	1:8	1:18	1:17
70%	69%	57.6%	55%
\$75	\$64.26	\$64.4	\$60.85
20	6	4	6
\$75	\$60	\$68.4	\$73.8
10%	8%	9.2%	10.9%
\$7,500	\$5,183	\$5,452	\$5,878
185-200	231-300	231-301	281
Top 300	381-494	350	331
Top 100	137	146	134
Top 25%	Top 25%	Top 25%	Top 259
30%	22.1%	22.1%	21.5%
985	987	981	*
\$1.20	<\$1	\$1.02	<\$1
	500 1,500 2,700 5,600 3,250 500 2,112 1,024 85% 90% 40% 50% 55% 2,100 450 19 1.0 600 1,250 118 750 675 75 250 147 1:19 70% \$75 20 \$75 10% \$7,500 185-200 Top 300 Top 100 Top 25% 30%	500 368 1,500 822 2,700 2,356 5,600 5,162 3,250 1,536 500 167 2,112 1,070 1,024 409 85% 78.6% 90% 77.6% 40% 25.4% 50% 44.8% 55% 53.0% 2,100 1,669 450 471 19 18.4 1.0 17.2 600 464 1,250 1,013 118 71 750 480 675 423 75 57 250 232 147 59 119 1.8 70% 69% \$75 \$60 10% 8% \$7,500 \$5,183 185-200 231-300 70p 300 381-494 70p 100 137 70p 25% 70p 25% 30%	500 368 409 1,500 822 817 2,700 2,356 2,514 5,600 5,162 4,683 3,250 1,536 1,513 500 167 194 2,112 1,070 1,059 1,024 409 401 85% 78.6% 77.0% 90% 77.6% 79.6% 40% 25.4% 27.5% 50% 44.8% 45.0% 55% 53.0% 51.0% 2,100 1,669 1,689 450 471 512 19 18.4 18.0 1.0 17.2 17.2 600 464 441 1,250 1,013 919 118 71 108 75 57 59 250 232 208 147 59 72 1:19 1:8 1:18 <t< td=""></t<>

NORTH CAROLINA A&T 2019–2020





(The Carnegie Classification of Institutions of Higher Education)



(The Carnegie Classification of Institutions of Higher Education)









AMONG PUBLIC HBCUs

(U.S. News & World Report, 2020 Best Colleges)





TOP PERFORMERS ON SOCIAL MOBILITY (TIE)

(U.S. News & World Report, 2020 Best Colleges)



140

TOP PUBLIC SCHOOLS (TIE)

(U.S. News & World Report, 2020 Best Colleges)





PATENTS LICENSED FOR COMMERCIAL ACTIVITY







UNDERGRADUATE ENROLLMENT

1053

00000000000000

3.56

AVERAGE SAT (Fall 2019)

AVERAGE ACT (Fall 2019)

AVERAGE FRESHMAN HIGH SCHOOL GPA (Fall 2019)



2,412 **DEGREES CONFERRED**



BACHELOR'S DEGREES

1,959



MASTER'S DEGREES

387



DOCTORAL DEGREES

66

