MORGAN STATE UNIVERSITY

Legislative Testimony

FY 2021 Operating Budget

Presented to:

House Subcommittee on Education & Economic Development
and
Senate Subcommittee on Education, Business & Administration

February 2020 | Dr. David Kwabena Wilson, President

TESTIMONY
Fiscal Year 2021 Operating Budget
Morgan State University

David Wilson, President
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Chair and members of the Committee, I thank you for the opportunity to testify on the Governor's fiscal year 2021 budget allowance for Morgan State University (MSU) and to provide you with an update on the University since last session.

First, I thank Governor Hogan for his support of higher education. I also extend my thanks to the members of the General Assembly, particularly this Committee, for your strong and continued support of Morgan State University. Our analyst, Mr. Ian Klein, has done an excellent job of analyzing our budget and, as part of my testimony, I will address the comments and recommendations he has identified.

INTRODUCTION

Morgan State University, founded in 1867, is a Carnegie-classified, doctoral, high-research institution providing instruction to a multiethnic, multiracial, multinational student body and offering more than 125 academic programs leading to degrees from the baccalaureate to the doctorate. As Maryland's Preeminent Public Urban Research University, Morgan fulfills its mission to address the needs and challenges of the modern urban environment.

Vision Statement
Morgan State University is the premier public urban research university in Maryland, known for its excellence in teaching, intensive research, effective public service and community engagement. Morgan prepares diverse and competitive graduates for success in a global, interdependent society.

Mission Statement
Morgan State University serves the community, region, state, nation and world as an intellectual and creative resource by supporting, empowering and preparing high quality, diverse graduates to lead the world. The University offers innovative, inclusive and distinctive educational experiences to a broad cross section of the population in a comprehensive range of disciplines at the baccalaureate, master's, doctoral and professional degree levels. Through collaborative pursuits, scholarly research, creative endeavors and dedicated public service, the University gives significant priority to addressing societal problems, particularly those prevalent in urban communities.

Located in a charming residential area of northeast Baltimore, Morgan's impressive, 152-acre campus features state-of-the-art facilities geared toward innovative teaching and learning in the 21st century. The campus, designated as a National Treasure by the National Trust for Historic Preservation, offers a safe and inviting learning environment with easy access to the best the city has to offer: culture, dining, shopping and sightseeing as well as employment and civic engagement opportunities.

Morgan has graduated more than 53,000 degree candidates since its establishment, producing a passionately developed corps of alumni who have found success in all areas of endeavor, in the U.S. and beyond. Among the nation's most diverse Historically Black Colleges and Universities (HBCUs), and the largest in Maryland, Morgan seeks to ensure that the doors of higher education are opened as wide as possible to as many as possible.

Whether you are a newcomer to Morgan's tradition of excellence — through word-of-mouth or exposure to the brand via events, activities or social media — or you come from a family of MSU alumni and were raised to bleed our colors, orange and blue, we welcome the opportunity to tell you about our rich history as well as the exciting initiatives on the horizon. Morgan is definitely on the move: *growing the future and leading the world!*

A DECADE OF MOMENTUM: A LOOK BACK AS WE PREPARE TO BECOME THE NEXT PUBLIC R1 INSTITUTION IN MARYLAND

Morgan has experienced unprecedented success over the last decade. Included among the most notable highlights are:

- The elevation of Morgan from a moderate research classification of R3 (a ranking it had held since 2006), to an elevated classification of R2, a status reserved for doctoral universities with high research activity;
- A second-year retention rate of above 70 percent for the past nine consecutive years;
- An alumni participation-in-giving rate of 17 percent, a rate higher than at most private HBCUs and higher than at many public regional universities nationwide;
- The highest graduation rate in 10 years, at 43 percent;
- The historic completion of the University's $254-million Sesquicentennial Anniversary Campaign;
- Procurement of the University's largest-ever research contract, a $28.5-million, five-year contract from NASA, and an additional $18.5M renewal; and $23.3M from the National Institutes of Health (NIH), the single largest grant in the University's history;
- The founding of a new school, the School of Global Journalism and Communication;
- The construction and planned construction of multiple state-of-the-art facilities including Tyler Hall Student Services Building, Martin D. Jenkins Hall, Morgan Business Center, Northwood Commons, a new health and human services building and a new science complex; and
- The continuation of Morgan's status as the No. 1 HBCU in production of Fulbright scholars and grantees, with 149 awarded for study in 44 countries around the world.

The University continues to operate under its existing 10-year Strategic Plan, focusing

on five broad goals that are consistent with the state's goals for postsecondary education. Captured on the following pages are the five specific goals as well as related programs and services implemented in support of each strategic priority and the resulting success and progress achieved.

Goal 1: Enhancing Student Success

Student success is our top priority at Morgan, and recent results "Bear" that out. The University has a well-established approach to enhancing student success and retention. Morgan's Office of Student Success and Retention is the recipient of the 2017 Hobsons Education Advances Award for Student Success and Advisement; the 2016 Association of Public and Land-grant Universities Turning Points: From Setback to Student Success Award; and the 2015 Association of Public and Land-grant Universities Project Degree Completion Award. The University is the only HBCU bestowed these national awards. This serves as evidence of the effective student success model at Morgan State, a model that includes a comprehensive early alert system, intrusive advising, ongoing tracking and monitoring of student cohorts, transparent and consistent notetaking, and specific programs and initiatives designed and delivered to promote degree completion.

Enriching Educational Experiences

Building on the success of our First-Year Experience Program, which includes professional advising, a mandatory freshman orientation during the summer, a mandatory first-year orientation course, and first-semester block scheduling, Morgan's new Second Year Experience (SYE) focuses on increasing student engagement while at the University and helping prepare students for successful careers after graduation. The centerpiece of the SYE Program is a mandatory experiential learning opportunity. Well-planned, supervised and assessed experiential learning programs can stimulate academic inquiry and promote inter-disciplinary learning, civic engagement, career development, cultural awareness, leadership and other professional and intellectual skills. Such opportunities may include study abroad, undergraduate research, service learning, internships, job shadowing, part-time jobs, and academic and career-related field trips, among others. This ambitious program requires the participation and support of Morgan's entire campus community.

Quality Indicators: State and National Rankings

The recognition of Morgan has much to do with its success as a leader within Maryland and the nation in degrees awarded to African Americans in critical fields, at all degree levels. Although Morgan's contributions generally have been well-documented, it is worth reviewing some of them because the University continues to make large contributions to state and national educational attainment.

Statewide Rankings: Degrees Awarded to African Americans

Bachelor's Degrees	Master's Degrees	Doctoral Degrees
1ST Applied Liberal Studies	1ST African-American Studies	1ST Bioenvironmental Sciences
1ST Architecture	1ST Bioinformatics	1ST Community College Leadership
1ST Broadcast Journalism	2ND Architecture	1ST Engineering
1ST Civil Engineering	2ND Economics	1ST History
1ST Electrical Engineering	2ND Electrical Engineering	1ST Public Health
1ST Industrial Engineering	2ND Social Work	1ST Social Work
1ST Public Health	3RD Public Health	2ND Urban Educational Leadership
1ST Social Work	5TH Business Administration	2ND Total Doctoral Degrees
2ND Marketing	5TH Nursing	
3rd Business Administration		
3rd Political Science	*Source: 2017–2018 IPEDS Provisional Data*	
3RD Total Bachelor's Degrees		
4TH Biology		
4TH Computer Science		

National Rankings: Degrees Awarded to African Americans

Bachelor's Degrees	Master's Degrees	Doctoral Degrees
1ST Civil Engineering	1ST Engineering	1ST Bioenvironmental Sciences
1ST Construction Management	1ST Hospitality Management	1ST Community College Leadership
1ST Electrical Engineering	1ST Landscape Architecture	1ST Engineering (tied)
2ND Architecture	2ND African-American Studies	1ST History
2ND Family and Consumer Science	2ND Museum Studies and Historical Preservation	2ND Public Health (tied)
2ND Hospitality Management	3RD Electrical Engineering	
2ND Transportation Systems		
3RD Industrial Engineering		
3RD Screen Writing and Animation		
4TH Nutrition Science		
5TH Music		

Source: 2017–2018 IPEDS Provisional Data
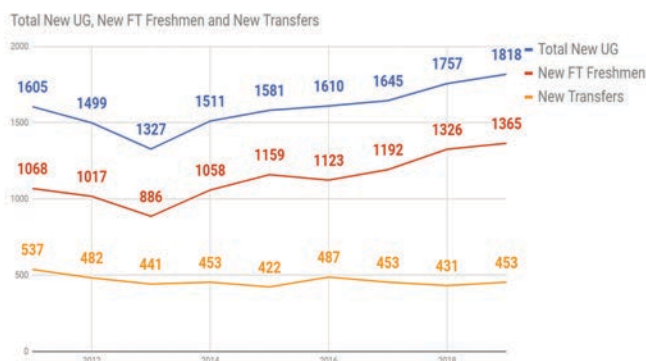
Reclamation Program

The University is a front-runner in terms of the Near Completers Program in the state. Morgan's Reclamation Initiative was started in 2011, targeting stopped-out students who had entered the University as first-time, full-time students, had earned 90 or more credits with a minimum cumulative GPA of 2.0 and were still within their six-year graduation window. Funding in the amount of $50,000 is allocated to the University annually to assist those with financial need. In its first year, the program helped the University increase its six-year graduation rate by more than a percentage point. By identifying students who are in good academic standing but are no longer enrolled, Morgan increased the 2005 cohort graduation rate of 28.9% to 30.2% for the 2006 cohort. During the program's nine years, more than 185 students have met the criteria and have been invited to return; more than 95 of them have re-enrolled. Morgan is a two-time recipient of the Maryland Higher Education Commission (MHEC) One Step Away Grant for near completers, and used the funds to expand the financial resources to students and to implement degree-planning software to assist students and advisors in knowing what courses they still needed to complete to graduate. The University also sent a list of 688 eligible students to MHEC in June 2019 as part of MHEC's Near Completer Outreach Program.
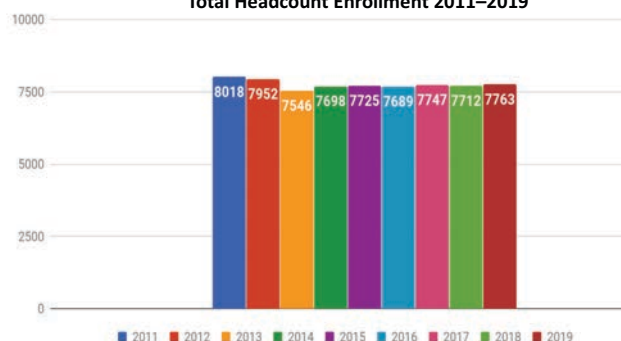
Enrollment Trends

Our total headcount enrollment for fall 2019 was 7,763, a 1% increase over last year. As reflected in the chart below, there were several positive developments in our fall enrollment, to include a 3% increase in new full-time freshmen over 2018, a 5% increase in new transfers over 2018, a 3.5% increase in total new undergraduates over 2018, the highest new full-time freshman enrollment since 2008, and the highest total new undergraduate enrollment since 2010.

New Undergraduate Enrollment 2011–2019

Total New UG, New FT Freshmen and New Transfers

Total New UG: 1605, 1499, 1327, 1511, 1581, 1610, 1645, 1757, 1818

New FT Freshmen: 1068, 1017, 886, 1058, 1159, 1123, 1192, 1326, 1365

New Transfers: 537, 482, 441, 453, 422, 487, 453, 431, 453

Total Headcount Enrollment 2011–2019

8018, 7952, 7546, 7698, 7725, 7689, 7747, 7712, 7763

2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019

2013: Decline due to impact of federal restrictions on Parent Plus Loan Program

Retention and Graduation

As a result of the aforementioned initiatives and others, we have seen an increase in our retention and graduation rates. Beginning with the entering class of 2010, the University has significantly increased its freshman-sophomore and sophomore-junior retention rates. Second-year retention rates have been above 71.3% for the past nine years. Third-year retention rates are at 61%. Fourth-year retention rates have risen to 54%.

Ninth Straight Year Above 70% Retention
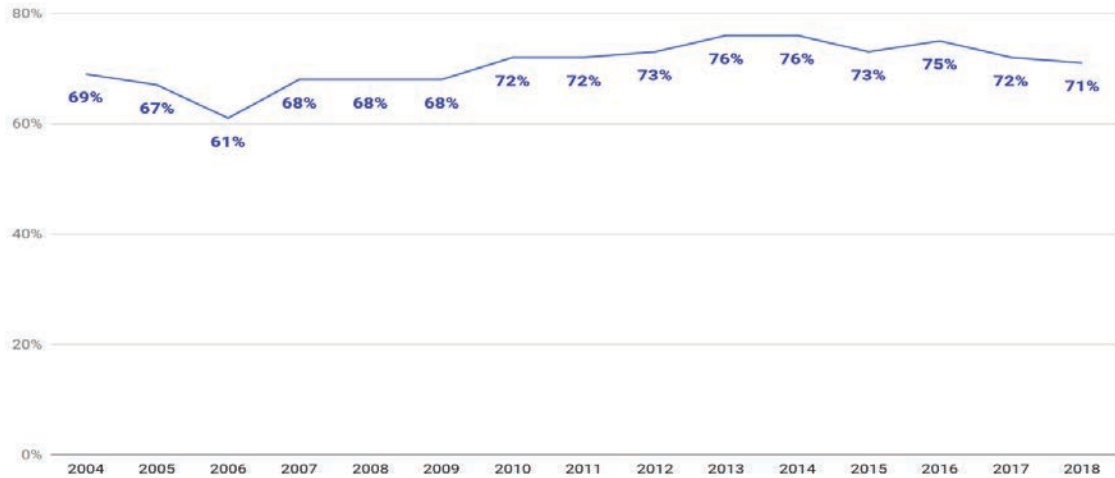
Return On Investment: Persistence Rates Through Fourth Year
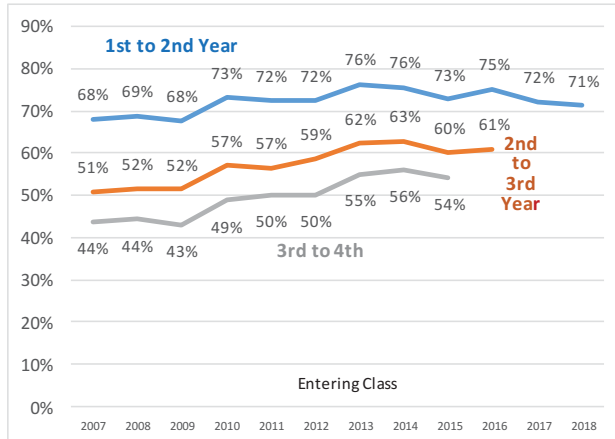
May 2019 – Second Highest Graduation Rate on Record

2013 cohort (2019 graduation rate)--43.3%. Only cohort with a higher rate was 43.8% for the 1999 cohort (2005 graduation rate). (records go back back to 1977)

The University has made great strides in achieving the "50 by 25" campaign goals, one of which is to increase our graduation rate to 50% by 2025. When Morgan first began this campaign in spring 2016, the six-year graduation rate was 33% (2010 cohort). Just three short years later, in spring 2019, the six-year graduation rate for the fall 2013 cohort was 43%. The projected six-year graduation rate for spring 2020 (fall 2014 cohort) is expected to be higher still. The numerous initiatives that make up the "50 by 25" campaign — advising and degree planning; faculty development and course redesign; and utilizing Lumina Foundation's Beyond Financial Aid — are clearly paying off.

Fulbright and Study Abroad

In January 2020, the University was named a 2018–2019 Fulbright HBCU Institutional Leader. The honor, launched this year by the U.S. Department of State's Bureau of Educational and Cultural Affairs, recognizes the noteworthy level of engagement that selected Historically Black Colleges and Universities (HBCUs) have achieved with the Fulbright Program. Morgan has long been first among all HBCUs in the number of Fulbright-related grants awarded to students, faculty and administrators and is one of the 19 schools included on the inaugural Fulbright HBCU Institutional Leaders list.

Morgan leads the nation's HBCUs by a wide margin in total number of Fulbright-related grants to Morgan students, 149, and to MSU professors or administrators, 75. This past summer, three new Fulbright scholarships were awarded to Morgan graduates, and a Fulbright-Hays Group Project Abroad award was granted to the University's James H. Gilliam Jr. College of Liberal Arts. Moreover, international education in general has reached new heights in recent years, as the Office of Study Abroad and Scholar Exchange in the University's Division of International Affairs saw record participation in study abroad programs by students during the last two academic years: 114 scholars went to 23 countries from fall 2017 through summer 2018, and 158 scholars visited 31 countries in 2018–19.


Study Abroad: School of Global Journalism and Communication students traveled to Cuba to collaborate on a documentary with students from the University of Havana.

Since its inception in 1946, the Fulbright Program has given more than 390,000 scholars, teachers, artists and professionals of all backgrounds and fields the opportunity to study, teach and conduct research, exchange ideas and contribute to finding solutions to important international problems. The Fulbright Program at Morgan was instituted when the late Sandye Jean McIntyre, II, Ph.D. (Distinguished Professor of Foreign Languages and Honorary Consul of the Republic of Senegal) was appointed campus Fulbright Program Director in 1951. He was succeeded by Carleen S. Leggett, Ph.D. who became the longest-serving (55 years) Fulbright adviser in university history.

Increased Relationships Around the Globe

At present, 20% of Morgan's student body is non-African American. Enrollment of international students is also a component of the University's diversity efforts. Since May 2014, the University has signed 42 agreements with international universities, which facilitate student and faculty exchanges and study abroad opportunities. Two new agreements were formalized in academic year 2018–2019, to include one in Africa (Federal University Dutse) and one in the Caribbean (University of Havana, Cuba).
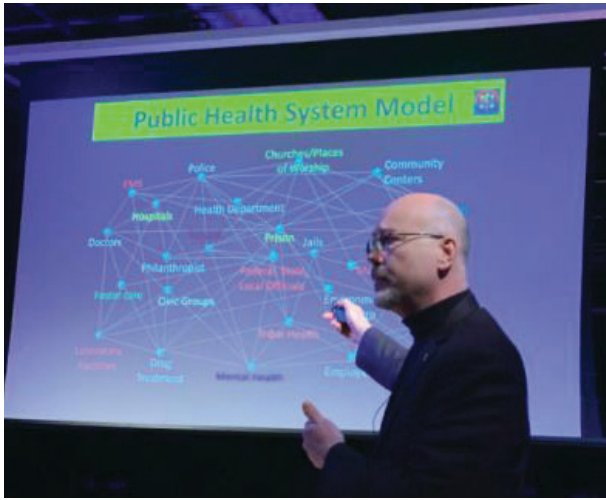
Over the past 18 months, Timothy Akers, Ph.D., assistant vice president for Research Innovation and Advocacy *(pictured at left),* has been working with faculty and administrators at De Montfort University in Leicester, England, United Kingdom, to establish a formal Memorandum of Understanding (MOU) for joint student and faculty exchanges and joint research collaborations. In furtherance of this collaboration, during November 2019, he was invited to give the keynote address to graduates of criminology, criminal justice and policing.

Approximately 12 new MOUs are under review and will be completed during the 2019–2020 academic year.

Goal 2: Enhancing Morgan's Status as a Doctoral University

Still strong in the liberal arts, where we have a decades-long track record of outstanding accomplishment, Morgan is now a standout producer of science, technology, engineering and mathematics (STEM) graduates, graduating more technical degree holders than the national average and having a higher percentage of STEM-employed alumni than any other college or university in Maryland.

Beyond its education of students, Morgan is a research university. As is the case at other research campuses, Morgan's faculty is expected to engage in both research and scholarship that advance knowledge in their fields. The resulting applied research enables the University to provide services as well as improve the quality of life in the surrounding communities and beyond.

Elevated Carnegie Classification

In December 2018, the Carnegie Classification of Institutions of Higher Education moved Morgan State University to an elevated classification of R2, a status reserved for doctoral universities with high research activity, from a moderate research classification of R3 (a ranking it had held since 2006). The University joined only 130 other universities to be given an R2 classification. Faculty and staff worked extremely hard to achieve this Carnegie reclassification by engaging in

Doctorates in Science and Engineering Awarded by HBCUs in 2018	
Institution	Degrees Awarded
Howard University	59
North Carolina A&T State University	42
Jackson State University	23
Tennessee State University	21
Morgan State University	16
Texas Southern University	14
Southern University and A&M College	12
Florida A&M University	11
Clark Atlanta University	9
Norfolk State University	8
University of Maryland Eastern Shore	8
Delaware State University	7
Morehouse School of Medicine	6
Hampton University	5
Prairie View A&M University	5
Bowie State University	4
Meharry Medical College	3
Tuskegee University	3
Alabama A&M University	2
Alabama State University	2

Source: National Science Foundation

a proactive and concerted effort to increase research contracts and grant amounts, while also graduating more students and expanding the types of research conducted on campus as well as in the community.

During its recent winter commencement ceremony, the University conferred its 800th doctoral degree, a number that included a record 71 doctorates awarded in 2019, the most ever awarded in a calendar year. Morgan also conferred 1,091 baccalaureate degrees and 248 master's degrees last year.

Doctorates Awarded

Master's Degrees Awarded

Bachelor's Degrees Awarded
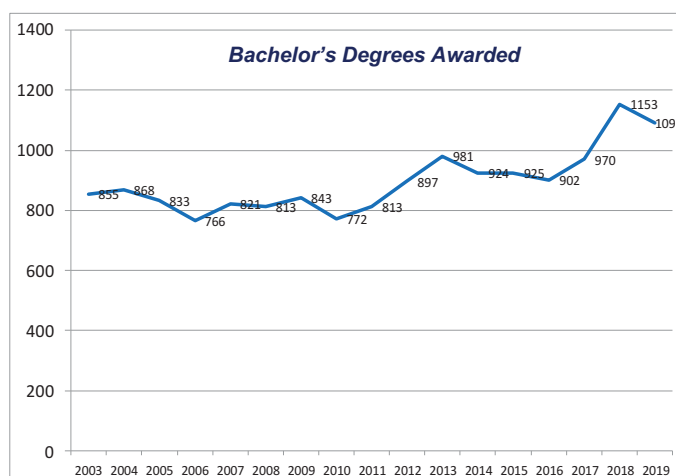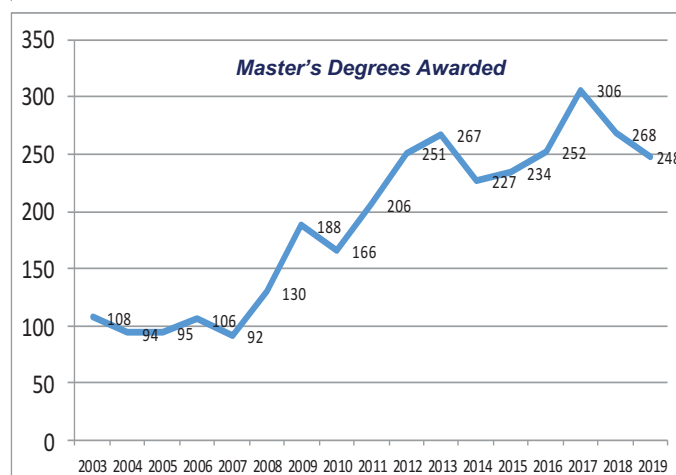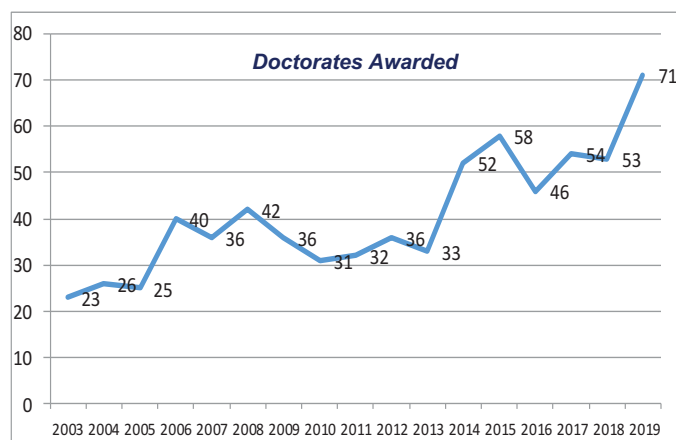
Morgan Receives New Grant Funding From the National Institute of Health to Advance Multiple Research Initiatives

In August 2019, Morgan secured a total of $35 million in new grant awards from the National Institutes of Health (NIH), the world's largest public funder of biomedical research. The funding will be used to advance research being primarily conducted by faculty and students in the School of Computer, Mathematical and Natural Sciences (SCMNS), chiefly through continued support of the ASCEND biomedical research program and the establishment of a new university center to reduce urban health disparities. The remaining grant resources will be allocated to support a variety of other important research initiatives emanating from the School's Departments of Biology and Chemistry.

With Morgan students: Hongtao Yu, Ph.D. (right), Dean of the School of Computer, Mathematical and Natural Sciences

The largest NIH grant received in this latest group of awards is in the amount of $16.9 million and will be used to fund the second phase of the NIH Building Infrastructure Leading to Diversity (BUILD) grant program, or ASCEND as it is known on the campus of Morgan. ASCEND, which is an acronym for "A Student-Centered, Entrepreneurship Development," is designed to train a diverse cadre of biomedical research leaders. The program takes a unique approach to preparing undergraduate students for entering the biomedical research workforce by providing them with leadership opportunities in the early stages of their research and encouraging the exchange of ideas. The first phase of ASCEND received $23.3 million in NIH funding, bringing the total to more than $40 million to date.

NIH's National Institute on Minority Health and Health Disparities (NIMHD) awarded Morgan $14.2 million to establish a center for Urban Health Disparities Research and Innovation, henceforth to be known as RCMI@Morgan. Through RCMI@Morgan, the university will conduct research that develops solutions to enhance health for all citizens of Baltimore, but with an emphasis on eliminating health disparities between minority populations and others throughout the city. The center will look to build a robust infrastructure to support both laboratory-based and behavioral biomedical research for students and faculty. Its initial projects will focus on HIV/HCV disparities, smoking cessation and gene expression associated with poverty, which are all critical health issues affecting Baltimore. Faculty members from Morgan's School of Community Health and Policy and College of Liberal Arts will also be involved in both the RCMI@Morgan and ASCEND research projects.

The remaining $3.7 million in NIH grants will be instrumental in funding other research initiatives housed within the SCMNS Biology and Chemistry Departments. These projects include the Research Initiative for Scientific Enhancement (RISE), Support of Competitive

10

Research Excellence (SCORE), and Institutional Research and Career Development Awards (IRACDA), a joint initiative with The Johns Hopkins University. Additional research will focus on Impacts of Sarcomeric Protein Phosphorylation on Ischemic Hearts.

Morgan's School of Computer, Mathematical and Natural Sciences (SCMNS) comprises five departments: Biology (including the Medical Technology Program), Chemistry, Computer Science, Mathematics (including the Actuarial Science Program) and Physics (including Engineering Physics). The school also offers three master's degrees — Bioinformatics, Mathematics and Science (Biology, Chemistry and Physics) — and two Ph.D. degrees: Bioenvironmental Science and Industrial and Computational Mathematics. Its mission is to provide a comprehensive offering of programs that will educate and nurture the next generation of scientists, mathematicians and technologists while advancing the frontiers of science and technology through scientific research and innovation in service to local, regional and global communities.

Morgan Students Stand Out at Biomedical Research Conference

A total of 40 Morgan State University scholars participated in the 2019 Annual Biomedical Research Conference for Minority Students (ABRCMS). The event, which was held on November 13–16, 2019 in Anaheim, California, is one of the largest professional conferences for students from underrepresented groups pursuing advanced training in science, technology, engineering and mathematics (STEM). Morgan's contingent comprised 34 scholars or affiliates in the University's NIH-ASCEND Center for Biomedical Research, three students in Morgan's NIH-RISE program and three students in the Washington Baltimore Hampton Roads Louis Stokes Alliance for Minority Participation program — all representing the next generation of health science researchers.

ASCEND scholars Marvellous Oke and Damion Trotter *(pictured at right)* won awards in the conference's oral and poster presentation event, which had more than 3,000 student participants. Oke, a senior psychology major, presented on the topic "A Machine Learning Approach to Predicting the Possibility of Seizures During an Admission for Intracerebral Hemorrhage." Oke conducted her research as part of the CLIMB-UP program at the University of Buffalo. Damion Trotter, also a senior psychology major, presented on "The Sleep-Wake Architecture of BACHD Mouse Model and Wild-Type in Relation to Sleep Deprivation." Trotter's research was done as part of the UCLA-HBCU Neuroscience Pathways Program.
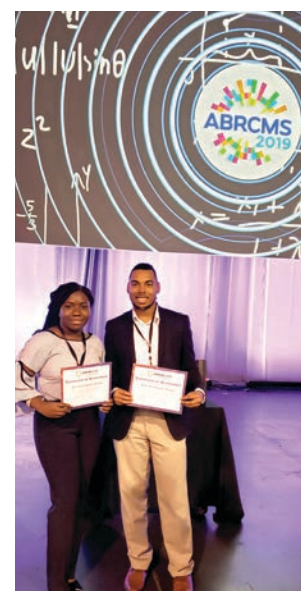
Activities for the students at ABRCMS included professional development workshops, inspirational plenary presentations from leaders in biomedical research, networking opportunities and scientific seminars. The conference also introduced scholars to a number of graduate schools and internship opportunities.

ABRCMS is sponsored by the National Institute of General Medical Sciences' Division of Training, Workforce Development, and Diversity and is managed by the American Society for Microbiology.

Tech Transfer, Intellectual Property and Patents

The Office of Technology Transfer (OTT) assists faculty, staff, administrators and students with innovations and intellectual property matters. In accordance with Morgan's Intellectual Property Policy and Procedures, the OTT has day-to-day responsibility, on behalf of the University, to make determinations of ownership of intellectual property and to manage, protect and commercialize University-owned intellectual property and/or otherwise make it available for public benefit.

The two charts below show five-year innovation output metric trends (FY 2015–2019) and the FY 2020 projections for new intellectual property disclosures and new U.S. patent applications. As expected, the annual innovation output numbers are maturing as we continue to build our innovation portfolio. Morgan continues to outpace innovation outputs/research dollar expenditures at more than four times the national and state averages.
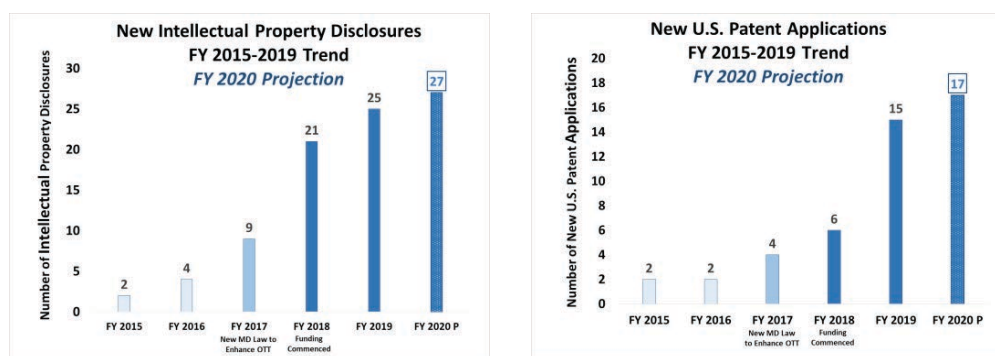
Morgan's innovation metric outcomes (which typically lag behind outputs) are also favorably comparable per research expenditures. As Morgan's tech transfer innovations mature along the commercialization pathway, our innovation outcomes (issued U.S. patents, tech transfer agreements, and startups) will rise. Although patent applications generally turn into issued patents, it can take three to five years from application to issuance, and not all applications result in an issued U.S. patent. The table below provides an update on Morgan's innovation metrics and metric comparisons per research and development (R&D) expenditures.

Morgan FY 2020 Innovation Metrics - Updated 2/1/20						
Association of University Technology Managers (AUTM) Metrics for U.S. Research Universities - Calculated per R&D Expenditures						
AUTM Performance Metrics		**Metric/$10 Million R&D Expenditures**			**Comparison**	
Innovation and Technology Transfer Output and Outcome Metrics	Morgan 2020 Projections	Morgan	U.S. Research Universities	Maryland Research Universities	Morgan Factor Compared to U.S.	Morgan Factor Compared to Maryland
Output Intellectual Property Disclosures	27	16.3	3.8	2.8	4.2 X	5.8 X
Output New U.S. Patent Applications Filed	17	10.3	2.2	1.0	4.7 X	10.3 X
Outcome Issued U.S. Patents	3	1.8	1.1	0.6	1.7 X	3.0 X
Outcome Total Tech Transfer Agreements	3	1.8	1.2	0.6	1.5 X	3.0 X
Outcome New Start up Companies Formed	2	1.2	0.2	0.1	6.0 X	12.0 X

1 Projections based on current Morgan data for FY 2020, and latest Morgan R&D Expenditures of $16,268,900.
2 Most recent AUTM Metric data available. R&D Expenditures as defined by AUTM - rounded to one decimal place.
3 Averages calculated for all 162 U.S. University data; State Averages include JHU, JHU/APL, and USM data; Rounded to one decimal place.

Unfortunately, the University's $1-million tech transfer appropriation has been eliminated in the Governor's budget. Given Morgan's progress with tech transfer initiatives as mentioned above, the elimination of this critical funding will adversely affect our tech transfer program, and we urge the restoration of these funds.

Cybersecurity Assurance and Policy (CAP) Center

With a $2-million state appropriation, Morgan established the Cybersecurity Assurance and Policy (CAP) Center, which is a University-wide research center with a mission to provide the electronics industry and intelligence community with knowledge, methodology, solutions and skilled cybersecurity professionals to help prevent the penetration and manipulation of our nation's cyber physical infrastructures. CAP is composed of faculty from the Schools of Engineering; Computer, Mathematical and Natural Sciences; and Business and Management. The Internet of Things (IoT) application space serves as the impetus for our research. CAP has had a transformative impact at the University, to include increased student enrollment, graduate education, grantsmanship, new strategic partnerships and new program development.

Research Impact

The Electrical and Computer Engineering Department in our School of Engineering has experienced a 20% increase in tenure-track faculty, a 20% increase in undergraduate cybersecurity course enrollment; a 52% increase in graduate cybersecurity course enrollment; and a 13% increase in cybersecurity doctoral students, bringing the total to 14. Faculty has secured three new research grants from the Department of Defense (DoD) and the National Science Foundation (NSF), totaling $500,000. In addition, we have fostered new strategic partnerships with academia and industry resulting in several new collaborative research proposal submissions totaling more than $85 million in possible future research funding. A summary of some of the other outcomes from the first year of funding follows.

- Hired three faculty in 2018 and one in 2019, with an ongoing search to hire four additional faculty this year.
- Hired five CAP Center staff, including: the Director, Program Manager, IT Manager, Post Doc and Administrative Assistant.
- Provided support for 24 undergraduate/graduate scholarships.
- Renovated two floors in our McMechen facility, which will be the new home for the CAP Center. We expect to assume occupancy on April 1, 2020.

Educational Impact

In 2016, we received our National Security Agency/Department of Homeland Security Center for Academic Excellence (CAE-CD) designation in cyber defense education in information assurance and reverse engineering. The CAE is now the education arm of the CAP Center. Preparations are underway to submit an application to receive our CAE Research (CAE-R) designation in January 2021 with a focus in hardware/software assurance and privacy policy.

All CAE member schools are eligible to participate in the DoD Cybersecurity Scholarship Program, which is a highly competitive program in which intelligence community agencies select from a pool of applicants to support them during their graduate matriculation (e.g., tuition, fees, computer, books and technical conference travel). The applicants are required to get a polygraph security clearance and must work at

the sponsor agency for a period equal to the period of support they receive. To date, we have won five awards supporting three DoD scholars who conduct research in the CAP Center. We are working on our 2019 submission with the hope of getting two new scholarships.

We also plan to offer a unique and innovative doctoral program in Secure Embedded Systems that targets highly motivated students who desire to pursue careers in embedded system security-related education, consulting, research or administration. The launch date for the new program is fall 2020.

The Master of Engineering in Cyber Engineering is a one-year, on-campus cooperative education program in which students are hired by the U.S. Navy to study networks and embedded weapon control system aspects of cybersecurity. Cohort sizes of up to 15 matriculate annually. The third cohort will commence in fall 2020.

Workforce Development Impact

To address the cybersecurity workforce shortage, we have established a pipeline of freshmen to doctoral students that includes scholarships, peer mentoring, experiential learning experiences and internship opportunities with our intelligence community and local DoD industry partners such as the National Security Agency (NSA), the National Cybersecurity Center of Excellence, the National Institute of Standards and Technology, Lockheed Martin and others. During the summer, before matriculation, freshmen engineering students recruited from top State of Maryland high schools par-

ticipate in a six-week program where they are totally immersed in calculus and physics. At the conclusion of the program, students are assessed to determine their first semester calculus course placement. The top 20% of students are then selected to conduct research in the CAP Center alongside a doctoral student-mentor. At the back end of the pipeline, we leverage the DoD Cybersecurity Scholarship Program. This year, two doctoral students will head to NSA while another two will head to the Naval Information Warfare Systems Command.

Goal 3: Improving and Sustaining Morgan's Infrastructure and Operational Processes

The University is keenly focused on the need to construct environmentally sustainable and technologically advanced facilities. The ongoing investment in Morgan's capital infrastructure has gone a long way in addressing facility deficiencies to meet the needs of our students. The campus is becoming more attractive, and many students now take their classes and do their laboratory work in state-of-the-art buildings. Recent physical improvements include: the Center for the Built Environment and Infrastructure Studies (2012) on our North Campus; the Morgan Business Center, home of the Earl G. Graves School of Business and Management (2015), and Martin D. Jenkins Hall, Behavioral and Social Sciences (2017) on our West Campus; and the Calvin and Tina Tyler Hall (the future student services building anticipated to open fall 2020) now under construction on the Main Campus. Demolition is scheduled to begin later this year to make way for construction of our new health and human services facility, and a new science complex is in the pipeline.
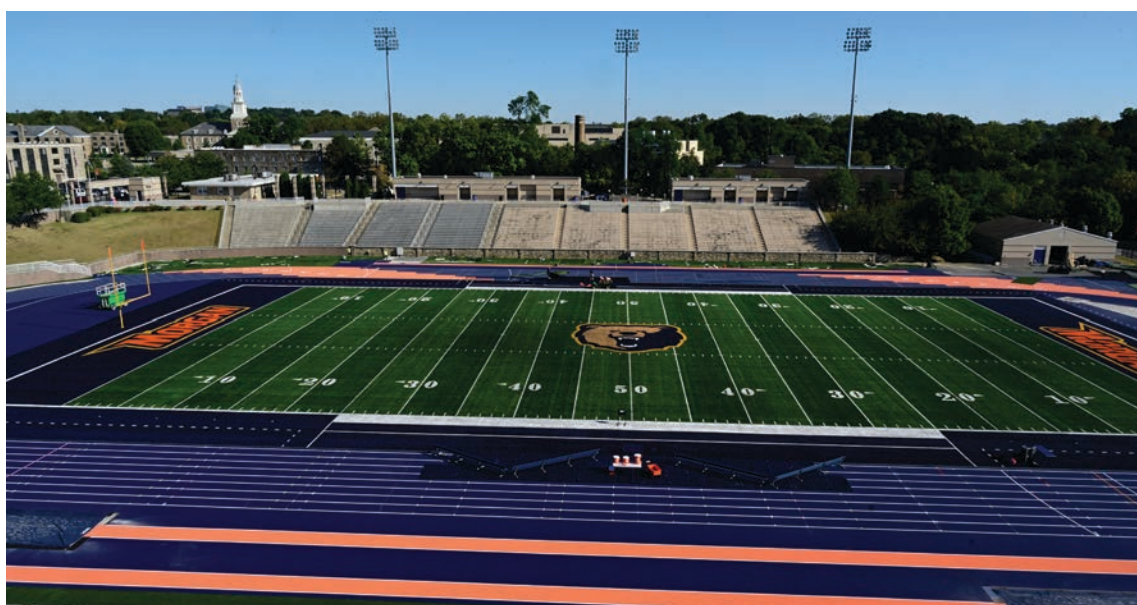
After presenting a convincing case to Governor Hogan's administration for investment in deferred maintenance, the Governor proposed an allocation of $39 million over the next five years. (It should be noted that the State was impressed with Morgan's case for deferred maintenance investment, and it informed us that they are recommending our model to other State agencies for their reference in the future.) This funding is the largest commitment we have ever received from the state for deferred maintenance, as we begin to tackle the growing backlog of critical projects, which is now valued at more than $100 million. In addition, the University leverages its ability to access additional capital for deferred maintenance for this purpose. To date, this funding as well as funding secured from the HBCU Capital Financing Program have been used to upgrade fire systems and replace the roofing of several residence halls, renovate science laboratories, replace the athletic track and field, increase lighting levels campus-wide and renovate the University's student dining facility, just to name a few.

Dixon Science Research Center Cooling Tower

Baldwin Hall Roof

Harper Tubman House Roof

With regard to operational processes, the campus community has collaborated with the University's Department of Information Technology in an effort to convert many paper forms/applications to streamline processes that will ultimately result in increased responsiveness, improved customer service and a more efficient use of limited resources. In addition, a campus-wide initiative is now underway to conduct a thorough review of all board-approved policies. This process entails identifying those policies that are obsolete, dated or not in compliance with the best practices of today's universities; flagging those policies that stagnate the University's ability to be innovative, nimble and agile in its decision-making process; and recommending any new policies that the University should consider in light of where higher education is today, and in light of Morgan's enhanced state designation. The project is expected to conclude by the end of 2021, with implementation plans to begin in FY 2022.

Goal 4: Growing Morgan's Resources

Fiscal Status & Bond Rating

A cornerstone of the University's decade-long success has been its ability to manage the finances of the institution in light of rising costs, the highly competitive environment of postsecondary education and ever-increasing demands for limited state resources. As a result of the annual credit rating reviews conducted by Moody's and Standard & Poor's (S&P) in the fall of 2018, both agencies affirmed their rating of Morgan with a stable outlook. The ratings are A1 and A+, as ascribed by Moody's and S&P, respectively. As part of an annual check-up of its fiscal health, Morgan successfully underwent its annual financial statement audit. This audit, conducted by the certified public accounting and business advisory firm SB & Company, resulted in no compliance issues, no material weaknesses, and no instances of fraud with full cooperation of management during the audit process. In FY2019, SB & Company reported an unmodified (clean) opinion of the University's audited financial statement for the eighth consecutive year.
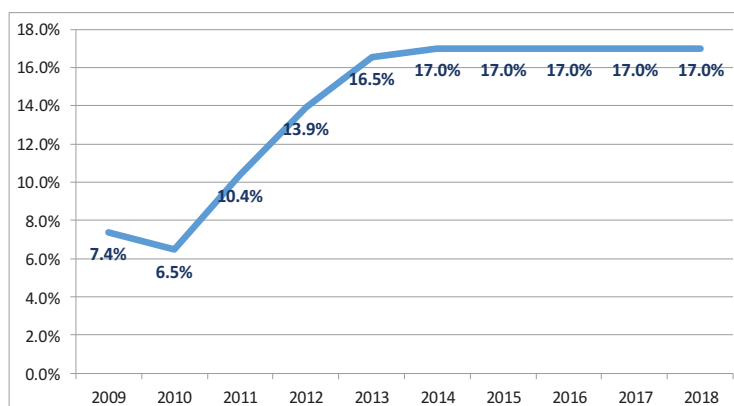
Historic Giving & Fundraising

Our strong credit rating and shrewd financial acumen bodes well for the Morgan brand. These positive attributes have enabled us to experience historic fundraising. The University raised $13.7 million in 2018–2019, which significantly exceeds what we have been able to raise in the past. Equally exciting, the University completed its Sesquicentennial Anniversary Campaign, raising $254 million, the largest development effort in the institution's history, consisting of $200 million in public funds and $54 million in private funds. In addition, alumni participation-in-giving has increased to 17%, a rate higher than at most private HBCUs and higher than at many public regional universities nationwide.

Alumni Participation-in-Giving Percentage

Strong State Support

The University is grateful for the funding received over the years, increasing to $102.7 million in FY 2020 from $73.9 million in FY 2011. Morgan will continue to leverage these gains to secure support from its state and local partners, philanthropic entities and alumni donors.

Correspondingly, on the capital side, ongoing support of Morgan has now positioned the University to begin to address some challenging problems with many of our facilities that are historic and have been long-neglected.

Goal 5: Engaging With the Community

Public/Private Partnership: Redevelopment of Northwood Plaza

In November 2018, the University, in partnership with the developers and owners of the Northwood Plaza Shopping Center, participated in a ribbon-cutting ceremony to mark the beginning of the redevelopment of the Center. The name of the Center will change to Northwood Commons, which is slated to open in mid-to-late 2022. The transformation of this location will bring forth a new kind of town center, one that will revitalize the area by bringing much needed services and business to the community.

Morgan will be part of this new vision. We are excited that our campus bookstore will be one of the anchor tenants and will be operated by Barnes & Noble. The new campus store will offer a variety of services to students and the community, including a sit-down Starbucks café. The University also plans to relocate its Police and Public Safety operation to Northwood Commons, directly across from the bookstore.

None of this would have been possible without the many hands active in its success. We are thankful for the contributions and the tireless efforts of countless supporters within the community, and for the support from within state and local government. With everyone working together, this much-needed and longtime-coming project came to fruition.

Economic Impact of Morgan

The University is a major economic engine for Baltimore City and the state, producing $1 billion in statewide economic impact annually, supporting 6,500 jobs and generating $47 million in state tax revenues. Approximately 60 percent of that economic and employment impact occurs in Baltimore.
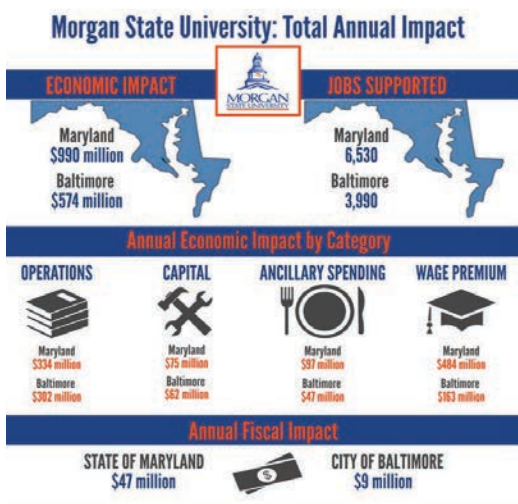
THE WAY FORWARD: POSITIONING MORGAN TO BECOME MARYLAND'S NEXT PUBLIC R1 INSTITUTION IN SERVICE TO THE STATE

Building on Our Progress

Morgan is moving into the ninth year of our 10-year Strategic Plan, "Growing the Future and Leading the World, 2011–2021." We are now making plans to update it and lay the groundwork for the next 10 years. The process will involve inviting several individuals to the campus who are authorities on the future of higher education and who will ensure that University leadership understands what is around the corner as well as the very turbulent period that higher education is now going through in the United States. A retreat will also be held to enable stakeholders to agree on the broad framework for developing the next strategic plan. The group will decide which existing strategic priorities should be included in the next 10-year plan — which ones should be tweaked and whether a few others should be added. The goal is to present the new strategic plan to the Board of Regents in February of 2021 for adoption and implementation on July 1, 2021.
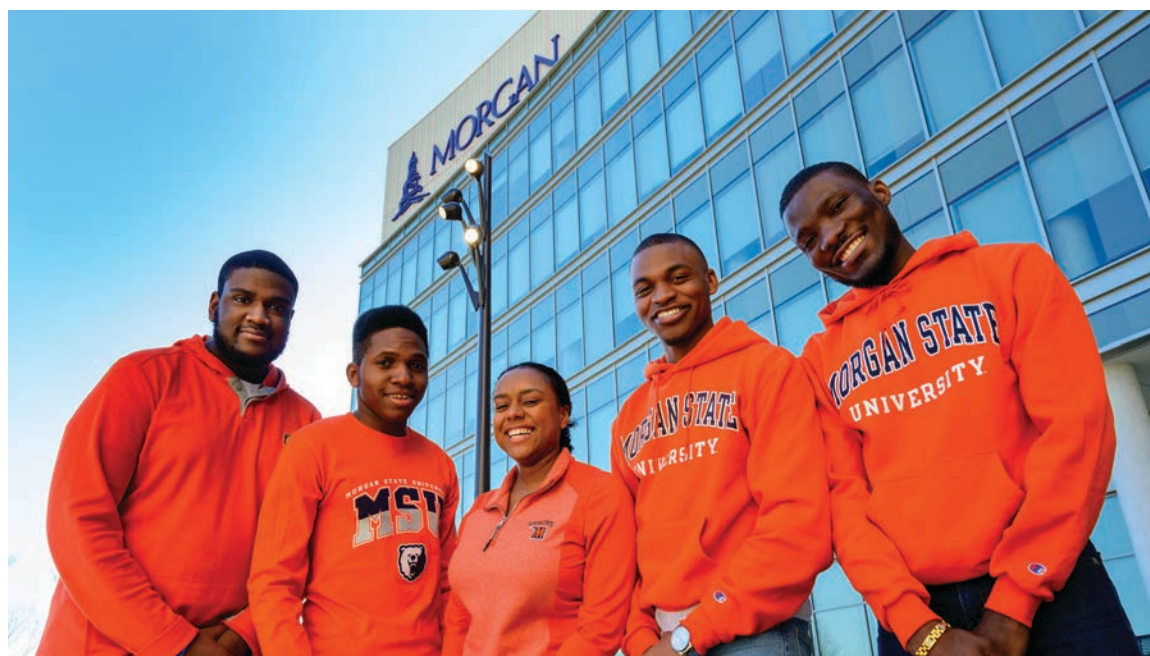
The University has also engaged the services of an external consultant to help us develop a modified approach to budgeting that would offer a more decentralized oversight of responsibility at the unit level. We expect to roll out the new budget model along with the newly approved strategic plan. The budget allocation model will follow what we have identified as our strategic priorities.

On the Horizon

Student success remains the number one priority at Morgan State University. A number of initiatives on the horizon will be implemented to attract and retain a diverse student body and a talented pool of faculty. A few of the planned undertakings are summarized as follows:

- **Construct new residential housing** – Board approves plan to add on-campus housing to accommodate up to 900 new and returning students in an apartment-style residence facility projected to be completed by fall 2022.
- **Explore potential new College of Osteopathic Medicine** – with the Board's review and approval of the agreement and other pertinent matters, the University optimistically projects having an operational medical school on campus as early as 2023.
- **Increase online degree programs** – areas being considered include new professional master's programs and new programs in cybersecurity and cloud computing, just to name a few.
- **Grow enrollment** – increase total enrollment to 10,000 (face-to-face, hybrid and online instruction)
- **Develop new "Morgan Completes You" program** – an innovative, highly student-centric approach to facilitating degree completion among the more than 500,000 students whose last enrollment was at a Maryland institution.
- **Create new Evening and Weekend Division** – catering to adult and nontraditional students with some college credits to facilitate degree completion
- **Grow global footprint** – entrepreneurial business model locations outside the U.S. (potential physical presence)
- **Cultivate international partnerships/collaborations** – African University College of Communications (in Accra, Ghana) and others

We are confident that these initiatives can be implemented successfully. However, it will require aggressive forward thinking, in addition to recurring state support or the allocation of above average multi-year funding. Continued investment in Morgan will enable us not only to fulfill the state designation as Maryland's Preeminent Public Urban Research University but also reach our goal of becoming the next public R1 institution in service to the state in the near future.

SUSTAINED INVESTMENT IS ESSENTIAL FOR MORGAN TO 'LEAD THE WORLD'

Critical Areas of Need: FY 2021 Operating Budget Request

As exhibited by our Over-the-Target Operating Budget Request to the Governor last year, the need is substantial to provide quality programs, maintain instructional facilities and retain staff that current and prospective students would expect to see at a premier public urban research university. The general areas of critical need submitted to the Governor are out¬lined as follows:

Center for Urban Violence Prevention	$4.0M
Enhancement of Safety and Security	$5.0M
Salary Compression	$2.0M
STEM Education	$6.7M
Operational Facilities Support	$4.0M
Center for Urban Health Disparities Research and Innovation	$2.0M
National Center for Sustainable and High Impact Practices	$2.0M
TOTAL	**$25.7M**

We are appreciative of the Governor's recommended support to enable us to tackle public safety challenges; increase the size of our police department; start a research, education, training and outreach center at Morgan to produce evidence-based solutions to curb violent crime; and assist us in operating new buildings we are bringing on line.

With regard to our capital budget, modest strides have been made. However, there is still much more to be done in terms of obtaining critical funds, to include: securing funds for a proposed Convocation Center and the renovation of an administration building to house our School of Graduate Studies, and ensuring that funds included for a new Science Complex remain in the State's Capital Improvement Plan (CIP).

CLOSING

Please be assured that Morgan continues to be committed to extending its resources to provide a high-quality education to an increasing number of students to assist the State in meeting its statewide goals for higher education. As additional recurring funding is made available, Morgan is uniquely positioned for accelerated growth as "Maryland's Preeminent Public Urban Research University," as we commit ourselves to **grow the future** and **lead the world** in a number of disciplines of paramount importance to Maryland's future economic vitality.

Thank you, again, and on behalf of Morgan State University, I request your support of the Governor's recommendations for FY 2021 and for the additional priorities we outlined above. I will respond to the issues presented by the analyst and will be happy to respond to any additional questions you may have.

RESPONSE TO ISSUES & RECOMMENDED ACTIONS
Department of Legislative Services' Analysis

Comment 1 (Page 15): The President should comment on whether MSU has undertaken efforts to identify administrative and academic efficiencies and, if so, what actions have or will be taken to achieve cost savings.

Response: In today's university environment, there is continued pressure to address the rising cost of higher education. Even with Morgan's mission and its commitment to access and affordability, continued tuition increases are necessary to deliver a quality education to our students. Expense controls are paramount to managing the delicate balance of revenue requirements. Although we fully realize that net tuition or discounted tuition is what students pay, Morgan's financial models indicate that long-term tuition will grow at a

slower rate than expenses, thus expense growth must be adjusted accordingly. All institutions of higher learning face this challenge, and Morgan, specifically, must continue to develop ways to enhance revenue while controlling costs.

In 2017, President Wilson established the Cost Reduction Task Force with the charge to identify ways to improve operating efficiencies, examine feasibilities of operating with fewer resources and explore new revenue/resource opportunities. The work of the Task Force is still ongoing. MSU continues to address its revenue needs by evaluating and developing new and innovative solutions to challenges in the economics of the education sector. Energy-saving measures related to construction management and physical plant operations are being developed, and several initiatives are now being evaluated.

With regard to efficiencies in the Division of Academic Affairs, there are several initiatives underway to streamline the routine transactional processes by utilizing advanced technology. One major initiative is the "Toss the Paper" campaign. The campaign involves evaluating all processes, paper-based forms and periodic reports, signature routes for approval, and archiving methods of documents to determine whether migrating to a digital process would increase efficiency and accountability. Further, several processes have been revised to eliminate the need for paper forms, and digital routing for review, approval and archiving has been implemented. For example, the out-of-state travel authorization requests in the Division of Academic Affairs are now processed using a paperless system. This new process has significantly decreased travel request review and approval time, which in turn has resulted in reduced lodging and airfare rates. In addition, the process of academic and legal review of Memorandums of Understanding has been re-engineered to enable electronic completion, approval and archiving. This has significantly decreased personnel time associated with completing these tasks as well as material associated with printing a large volume of documents.

The Division of Academic Affairs is fully utilizing data-informed strategies to enhance the efficiency of decision-making in the unit. Specifically, data are crucial in areas including faculty hiring, assigning faculty-teaching load, predicting course demands for upcoming semesters and exploring funding reallocation opportunities based on historic performance of academic programs and national trends. The Office of the Provost is preparing to launch a campaign under the name, "Data-Informed Decision Making in Academic Affairs." The aim of this campaign is to increase awareness, at all administrative levels, on the importance of evidence-based management and its impact on efficiency. Furthermore, the campaign will improve our ability to respond in a timely manner to the national and global trends in higher education.

In addition to updating our transactional processes, the Division of Academic Affairs is also engaged in several other high-impact transformational initiatives. For example, in efforts to increase efficiency, all academic units are required to develop a new, optimized one-year master schedule based on historic trends in seat utilization. This annual master scheduling initiative will minimize the number of under-enrolled sections for the 2020–2021 academic year. Moreover, this initiative will ensure the high-quality delivery of academic courses while eliminating course duplication, section redundancy and faculty utilization, thereby reducing instructional costs.

*Recommendation 1 (Page 17): **The Department of Legislative Services (DLS) recommends reducing MSU's general fund appropriation by $520,000, which is approximately equivalent to the increase in revenue from a 1% tuition increase. This relatively small increase in tuition would relieve pressure on the General Fund.***

Response: Morgan does not agree with the recommendation to increase its tuition rate from 2% to 3%. The University works diligently to minimize tuition increases in recognition of the diverse socioeconomic background of its student body. As such, Morgan's tuition remains one of the lowest among state-supported institutions and has remained stable with 2% annual increases since FY 2016. Morgan's population is highly vulnerable to increases in the cost of attendance. Sixty-five percent (65%) of our students are in the two lowest income quartiles (38% are in the lowest quartile, 27% in the second lowest). Approximately 36% of our students are first-generation college students. In fall 2018, approximately 53% of our students were Pell-eligible, and 45% of Pell-eligible students received the maximum Pell Grant amount (with zero expected family contribution). Among all undergraduate students, 23% received the maximum eligible Pell Grant. Surveys of the 2014 and 2017 cohorts of entering freshmen found that in both instances, the top three reasons students left Morgan were financial (cost of attendance, amount of financial aid received and the need to work to earn money). Maintaining the annual 2% rate increase enables the University to continue to succeed in aiding students to overcome barriers and challenges of affordability in higher education. Increasing tuition by 3% will significantly affect our students' ability to pay their bills, and it could lead to lower enrollment, retention and graduation rates.

*Recommendation 2 (Page 18): **DLS recommends that the safety enhancements funding included in the budget be reduced to cover only operating-related expenses. The capital enhancements can be supported through the $10.0 million in deferred maintenance and site improvement fund in the capital budget.***

Response: Morgan does not agree with the recommendation to reduce the safety enhancements funding. Although we acknowledge that our request for safety enhancements included funding for building and major improvements totaling $3.43 million, this funding was not intended to conflict with deferred maintenance and site improvement projects to address campus-wide capital maintenance needs. The requested funding will specifically address critical safety enhancements without compromising the much-needed deferred maintenance and site improvement projects, none of which has been earmarked for immediate implementation of the strategic safety enhancements (cameras, fencing and lighting). It is Morgan's urgent priority to ensure the safety and well-being of the University and surrounding community. Morgan has earmarked the $10 million included in the fiscal year 2021 capital budget for deferred maintenance including roof repairs, mold and asbestos remediation, and other critical campus maintenance matters not addressing security, although nonetheless important. Further, the other security-related enhancements included in the $3.43 million funding are intended to ensure the 20 additional police officers hired are properly outfitted (weapons, gear, uniforms, vehicles, etc.) and trained, and fully capable of providing security and policing activities to the community. The hiring of 20 police officers alone is not sufficient to achieve enhanced security: a more comprehensive

approach is needed. Therefore, we respectfully request that the security enhancements initiative totaling $5 million be fully funded as submitted. It should be noted that Morgan has requested, as part of its crime reduction strategy, funding to establish a new Center for Urban Violence Prevention, and we are counting on a portion of this appropriation to enable us to open this Center in the fall of 2020.

Recommendation 3 (Page 21): DLS recommends that MSU adopt the same policy as the USM BOR and SMCM BOT with respect to the publication of materials presented during open session and standing committee meetings. Additionally, DLS recommends that MSU publicize their public session minutes in a timely fashion after BOR meetings.

Response: The University agrees with the DLS' recommendation that MSU adopt the same policy as the USM BOR and SMCM BOT with respect to the publication of materials presented during open session and standing committee meetings. The University also agrees with DLS' recommendation that MSU publicize their public session minutes in a timely fashion after BOR meetings.

Recommendation 4 (Page 22):
Add the following language to the unrestricted fund appropriation:
, provided that this appropriation made for Morgan State University for the purpose of safety enhancements shall be reduced by $3,430,000.

Response: Morgan disagrees with the recommendation to reduce the safety enhancements funding, as detailed in our response to Recommendation 2 above.

Recommendation 5 (Page 22):
Add the following language to the unrestricted fund appropriation:
Further provided that the current unrestricted appropriation made for Morgan State University shall be reduced by $520,000.

Response: Morgan disagrees with the recommendation to reduce the current unrestricted appropriation by $520,000, as detailed in our response to Recommendation 1 above.

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