Personal Statement for Consideration of Reappointment as Dean

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OVERVIEW OF LEADERSHIP AND ACCOMPLISHMENTS

Looking back over the many achievements and amazing progress that the Volgenau School of Engineering, now the College of Engineering and Computing (since 1 April 2021), has made during the past nine years, I am honored to have the privilege of leading our college as its dean. Collectively, our faculty, staff, students, and alumni, together with our colleagues throughout the entire university as well as our external partners, have made significant contributions towards the attainment of Mason's strategic goals. My special appreciation goes to the VSE Advisory Board, currently chaired by Lisa Donnan. Comprised of 34 members who are key leaders from industry and government agencies, our Advisory Board helps us to set a clear and compelling vision for our academic and research programs, and provides support in numerous other ways to help us achieve our goals. They are true partners in every sense of the word, and invest considerable time and energy for us to be successful. Furthermore, every department is expected to have its own advisory board, with the chair of each departmental board serving as an ex-officio member of the VSE board.

While we have accomplished so much, we are poised to do so much more over the next five to six years. Mason is on the verge of breaking into the ranks of our nation's greatest institutions of higher education, both by objective standards as well as by reputation. Likewise, our College of Engineering and Computing has advanced steadily in reputation lead by our successes in every area of endeavor. Buoyed by all of this, and the incredible potential impact of Mason's New Virginia Promise under President Washington's leadership, I am highly motivated to serve a third term as dean.

I believe that I have provided strong and effective leadership throughout my second term as dean, building on the progress made during my first term, for both VSE as well as for the university. In the most recent U.S. News and World Report rankings of our nation's Best Graduate Schools, VSE climbed nine places from a year ago to #93 – our highest ranking ever, and breaking the Top 100 for the first time. In 2011, our ranking was #125. We also made significant advancements in the 2019 NSF Higher Education Research & Development (HERD) rankings (the most recent rankings available). Research expenditures in Computer and Information Sciences ranked 12th among all universities, 8th among public institutions, and No. 1 in Virginia. Research expenditures in Engineering entered the top 100 nationally for the first time ever, ranking No. 93 (jumping 49 spots from 142 in 2018), 69th among public universities, and No. 3 in Virginia.

In 2011, Mason's total research expenditures were $88,089,000, ranking #156 nationally. That year, the combined engineering and computing research expenditures for Mason were $17,964,000. Computing and engineering accounted for 20.4% of Mason's total research expenditures. In 2019, Mason's total research expenditures were $186,267,000, ranking #122 nationally. The combined 2019 engineering and computing research expenditures for Mason were $67,320,000, accounting for 36.1% of Mason's total research expenditures. From 2011 to 2019, research expenditures in engineering and computing increased by $49,356,000, or 275%. The success in growing Mason's research expenditures in engineering and computing has played a vital role in securing our position as an R1 doctoral research institution.

R&D Area	FY2011 (Rank)	FY2019 (Rank)	Increase ($)	Increase (%)
Engineering	$9,221,000 (#160)	$36,101,000 (#93)	$26,880,000	291.5%
Computing	$8,743,000 (#48)	$31,219,000 (#12)	$22,476,000	257.1%
Total	$17,964,000	$67,320,000	$49,356,000	274.7%

NSF HERD Rankings by R&D Field – VSE. Increase is over period from FY2011 to FY2019.

We have also significantly expanded the number of degree programs offered since 2012, as we have completed the transformation to a comprehensive College of Engineering and Computing. In 2012, we offered eight Bachelor's, 14 Master's, and six Ph.D. programs, with a total student enrollment of 4781. Today, we offer 11 Bachelor's, 17 Master's, and seven Ph.D. programs, enrolling over 8565 students. We also support several new BAS degree options, and a number of minors, concentrations, and certificate programs. By headcount, our student enrollment has increased 79.1 % over that time period, while our corresponding student FTE enrollment has increased 101.1%. Our student credit hours taught has increased by 105.3% during this period.

We have kept pace with our strong growth in student enrollment by vigorously growing our faculty size, as well as the size of our classified staff. VSE has been very proactive in response to the needs of our students, placing a high priority on ensuring that we have sufficient faculty to maintain reasonable student-faculty ratios to allow vigorous levels of student-faculty interaction and mentoring, to limit the number of large-enrollment classes, and to be able to offer all of the courses that students need to graduate, including elective courses. Recognizing the tremendous contributions of our term faculty, we routinely approve multi-year term faculty contracts, including for our new hires. Since FY17, we have offered a total of 34 3-year initial contracts and five 2-year initial contracts out of a total of 48 new positions; over 80% have been multi-year.

Mason's incentive budget model was fully implemented during my second term as dean, and allows greater local control over the hiring process. New faculty and staff hiring plans are developed at the beginning of each academic year, working with the department chairs and associate deans, our finance director, and our Chief Diversity Officer (CDO). Focusing on the last five years, the table below shows the growth in our faculty and staff numbers. During this period, our corresponding growth in student enrollment (by headcount) was 38.3%. A few conclusions can be drawn by examining the table. First, growth in the faculty/staff ranks kept pace with the growth in student enrollment, thus maintaining overall student-faculty ratios. The student-faculty ratio decreased in FY21 and is expected to decrease again in FY22. Average faculty teaching loads also decreased significantly over this time period.

Faculty/Staff Category	Fall 2015	Fall 2020	Increase (%)
Tenured/Tenure-Track	107	140	30.8%
Term	43	68	58.1%
Adjunct	159	191	20.1%
Research Staff	9	24	166.7%
Classified Staff	37	50	35.1%

Faculty and Staff Growth, Fall 2015 – Fall 2020.

For the 2020-21 academic year, the average teaching load for tenured faculty across VSE is 2.5 courses, a reduction of a full 1.5 courses from the baseline of 4 courses specified in the VSE Faculty Workload Policy. Led by the CS department, with 17 tenured faculty having course reductions of one or more courses due to exceptional research activity, 45 tenured VSE faculty had course assignments of 3 or fewer courses this current academic year. Course reductions were also awarded to 46 tenured faculty for additional service or administrative assignments requiring on average 10 hours of effort per week (roughly equivalent to teaching one course). Faculty who teach very large enrollment courses also get course reductions commensurate with the size of enrollment. For the tenure-track faculty, the average course load for AY 2020-21 is 2.2 courses. Course reductions are a standard part of our startup packages for all tenure-track faculty in CEC.

We also provide course reductions for our term faculty members, to be sure that they are fairly given credit for their service and outreach activities, as well as administrative assignments such as course coordination for courses with multiple sections. Additional course reductions are also provided for teaching large enrollment courses. For the current AY, the average term faculty workload is 6.1 courses, a reduction of 1.9 courses on average from the baseline of 8 courses in our workload policy.

The relative reliance on adjunct faculty also decreased, as growth in the full-time faculty ranks outpaced growth in the adjunct ranks. I would also note that the decision on whether to hire new faculty members in the tenured/tenure track category or the instructional term faculty is made at the department level, by the department chairs and the department faculty. Factors such as the number of course sections that are offered and anticipated growth in student enrollment, use of adjunct faculty instructors, average teaching loads for research-active faculty, overall faculty workloads, and start-up costs for new tenure-track hires are taken into consideration by the departments. Students always come first, and effective course delivery is always the foremost consideration.

Once teaching needs are met, emphasis shifts to increasing our tenured/tenure-track ranks to promote research and to support our graduate programs. To this point, we are currently recruiting 24 new tenured/tenure-track faculty members to start in the Fall 2021 semester, compared to 12 new term faculty recruits.

Throughout our hiring process, we have strongly emphasized the need to improve the consideration of diversity, equity, and inclusive excellence, to broaden representation of women and underrepresented minorities on our faculty. Each of our search committees has a member assigned as an Equity Champion, whose role is to assist the search committee with identifying and recruiting diverse qualified applicants. The Equity Champions receive training from the CDO about techniques to complete this task successfully. In addition, our CDO participates in the approval process for each group of finalists for the second-round "phone" interviews, as well as the finalists for the "campus" interviews for all of our faculty searches.

VSE has also significantly increased support for our graduate students, increasing stipends and benefits as well as the total number of Graduate Teaching Assistant and Graduate Research Assistant positions. GTAs also help to support our growing undergraduate student population, while GRAs also support our faculty research. GTAs are supported by the VSE and departmental budgets, and GRAs are supported by VSE through start-up funds and/or faculty research contracts and grants. Postdoctoral research fellows have also been increasing in number.

Position	Fall 2015	Fall 2020	Increase (%)
GTA	169	239	41.4%
GRA	100	164	64.0%
Postdoctoral Fellow	10	15	50.0%

GTA, GRA, and Postdoctoral Fellow Growth, Fall 2015 – Fall 2020.

University Leadership

As one of 12 deans at George Mason University, I am a member of the university's senior leadership team, and I work closely with both President Washington and Provost Ginsberg to advance the strategic vision of the university. I also work very closely with my fellow deans on a variety of initiatives, multi-disciplinary collaborations, and issues related to our academic programs and policies. I have also had extensive interactions with the non-academic departments at Mason, especially facilities, finance, enrollment management, admissions, communications and external relations, government relations, human relations, information technologies, advancement, and even athletics. I have developed and maintain excellent working relationships with faculty leaders and administrators throughout the university. I embrace a philosophy of supporting the other Mason units as strongly as I can, and I encourage our department chairs, associate deans, and directors to adopt the same philosophy when dealing with their counterparts in other units. For example, we have reached out to the other units many times to form multidisciplinary teams and collaborations and programs. We also generously support the dual-career faculty recruiting efforts of other units, and I helped to develop the current policy supported by the Provost's Office to enhance our faculty and staff recruiting efforts.

I am also deeply engaged with the broader university community and its various stakeholders and constituents, including numerous corporate, government, and community partners. In my nine years as dean, I have developed close personal relationships with many members of Mason's governing Board of Visitors. I have also worked closely with Virginia's political leaders, both at the state and federal levels, to advance economic development opportunities, advocate for educational and research program support, and to garner support for other initiatives that are important to the community. As the senior engineering dean in the Commonwealth of Virginia, I organize and lead a delegation of my fellow Virginia deans each year in visits to Capitol Hill in Washington, D.C. to meet with our state's congressional delegation to advocate for greater support of higher education. I am also on the Executive Committee (and past chair) of the Virginia Micro-Electronics Consortium (VMEC), an appointed member of the Commonwealth's Virginia Nuclear Energy Consortium Authority, and support other partnerships among Virginia's universities.

National and Global Leadership

I maintain a high level of visibility in several prominent national and international professional organizations. Through my external leadership positions and external activities, I am able to actively promote George Mason University broadly, and VSE specifically. Within the American Society for Engineering Education (ASEE), I currently am serving as the Vice Chair and Chair-Elect of the Engineering Deans Council's Executive Board. This is a very active group comprised of about 300 engineering deans (mostly in the U.S.), and it has considerable influence over the future of engineering education and allied disciplines including computer science and information technology. Each dean also has a vote in the U.S. News & World Report rankings, which reflects a college's reputation and awareness of its programs. I am pleased to note that our current President Gregory Washington previously held this exact same position, and his awareness of the high quality of our programs and the impact that we have both regionally and nationally was a factor in his decision to consider the presidency at Mason.

I also serve on the Executive Board of the Global Engineering Deans Council, the ABET Engineering Accreditation Council's Executive Committee, the ABET Academic Advisory Council, and as the ASEE Southeastern Section's Campus Representative Coordinator. The Academic Advisory Council represents all of ABET's four Commissions, including the Engineering Accreditation Commission (EAC) as well as the Computing Accreditation Commission (CAC). Since CSAB is one of ABET's governing societies, my ABET leadership roles provide me with additional pathways to stay connected with computing research and education. I am highly engaged with ASEE's Corporate Member Council, providing additional visibility for Mason and VSE among ASEE's extensive network of industry and professional partners. I am on the organizing committee for the year-long series of conferences and workshops that comprise the Industry 4.0 Workforce Summit, for which Mason is the "Premier Academic Sponsor" and featured prominently at every meeting and event.

My leadership to the engineering and computing communities provides significant visibility for Mason and VSE on both the national and international levels. These positions also afford me additional opportunities to engage with both industry and government groups and officials, bringing more recognition and awareness of Mason and VSE to the corporate world, government funding agencies, political leaders, employers, and the general public. Over the past year, I have served on numerous invited panels and workshops to promote VSE programs and VSE faculty research, and to highlight the capabilities and achievements of our students.

VSE BUDGET AND TRENDS, FY17-FY21

The Dean's Office has provided responsible stewardship for VSE's fiscal resources, while at the same time pursuing a fairly aggressive investment strategy to advance the strategic interests of Mason and VSE. Under the Incentive Budget Model, VSE has driven a significant level of growth in its Education & General (E&G) state budget resources. Over the past five years, VSE revenue has grown from $74M to a budget of $102M

for a 40% increase. This revenue increase has been driven by a 30% enrollment increase over the time period shown, as well as increasing direct revenue sources such as contract courses and online programs. This revenue increase has resulted in VSE growing its expense budget by over 45% from $40.5M in FY17 to $58.6M in FY21 (before COVID expense reductions). The majority of this expense increase has been invested in growing our faculty, staff, and graduate assistant positions. We have accomplished this while still increasing the funding we provide to support central university shared services.

	FY17	FY18	FY19	FY20	FY21
	Actual				Budget
Revenue (per budget incentive model)					
State appropriation	18.56	18.8	21.6	25.6	26.6
Net tuition IS	29.8	34.6	37.9	41.1	44.5
Net tuition OS	23.9	24.9	28.1	30.8	31.8
Direct	7.42	8.4	9.1	10.1	10.9
UG fin aid +other	(5.5)	(7.1)	(8.1)	(12.9)	(11.4)
Net revenue	**74.25**	**79.6**	**88.7**	**94.6**	**102.4**
Expense					
Compensation	(37.1)	(42.6)	(47.2)	(52.2)	(51.7)
Direct +transfers	(3.4)	(2.2)	(3.5)	(4.6)	(3.6)
Net expense	**(40.5)**	**(44.8)**	**(50.7)**	**(56.8)**	**(58.6)**
Contribution to central	31.5	33.0	34.5	36.4	43.8
% of Net Revenues	42.4%	41.5%	38.9%	38.5%	42.8%

VSE E&G Budget Trends, FY17-FY21 (figures in millions USD).

Not only have we grown our permanent funding, VSE has also grown our "carry-forward" or strategic reserves fund balance through effective cost management processes. Our reserve balance has grown from $3.0M at the beginning of FY17 to an estimated $11.3M at the end of FY21. We have achieved this growth while still using the funds to drive investments in strategic areas such as faculty startup packages, facility improvements, and marketing and branding. During the five-year period, we have spent $7.5M of our reserve balance on these initiatives. We have current commitments against the $11.3M fund balance in the amount of $5.9M, including $4M for startup packages and $1.9M for equipment and facilities-related charges, and anticipate another $7.9M in commitments over the next three years for future hires, facilities, and operations. The total of these commitments is $13.8M, which exceeds our current fund balance, but we expect to add to the fund balance each year to make up the difference while also allowing for new investments.

Improving faculty and staff compensation is also a very high priority, to ensure that we remain competitive with our peers and also to address the issue of salary compression. Over the period FY16-FY20, raises provided by the Commonwealth for faculty averaged 2% per year. Through our VSE discretionary raise process, we grew that average annual salary increase to 3.5% which resulted in $4.7M in additional salaries to be paid to our faculty and staff during those five years (cumulative total). Briefly stated, discretionary raises are considered at the beginning of every academic year upon the recommendation of the department chairs, to address the most significant cases of retention risk and salary alignment in each department or program. We expect to do even more in the next few years, as the issue of salary equity and competitiveness has become one of President Washington's signature priorities, with support from the Provost, Senior Vice President, and Vice President for Human Resources and Payroll.

Fiscal Year	Beginning Balance	One Tme Reduction	80% of Net Profit	Use of Funds	Ending Balance	Net Change
FY2017	2,948,477		3,701,554	(2,359,026)	4,291,005	1,342,528
FY2018	4,291,005		1,157,396	(210,868)	5,237,533	946,528
FY2019	5,237,533		2,875,868	(69,199)	8,044,202	2,806,669
FY2020	8,044,202		3,832,887	(2,641,394)	9,235,695	1,191,493
FY2021	9,235,695	(689,062)	5,000,000	(2,250,000)	11,296,633	2,060,938
Total 5 Year			16,567,705	(7,530,487)		

VSE Strategic Reserves Fund Balance Trends, FY17-FY21 (figures in USD).

VSE Departmental Budget Model

VSE has implemented a departmental budget model for its E&G funding that uses the same incentive model as the University. This allows the allocation of funding to be based on enrollment growth and provides more autonomy to the department on how they spend their funding. While adjustments are made between departments in order to meet overall strategic objectives, the methodology for those adjustments are shared with the faculty and administrative leaders.

Moving to this model has improved the equitability of the allocation of resources across the unit. Since we implemented the new departmental budget model in FY18, our departments with the largest enrollment growth have seen increases in their expense budgets that equal the increase in their revenue growth. The model is continually evaluated to ensure that it provides the necessary resources to support growth of all our programs and departments in a fair, equitable, and transparent manner. The Director of Finance has ongoing discussions with all the department chairs regarding their financial performance, opportunities to drive revenue growth, and areas to invest growth generated. The Director of Finance joins me at the end of every academic year at departmental faculty meetings to present the VSE budget and the departmental budget, and to answer any questions that may arise. We are committed to the principal of subsidiarity, and delegating both budgetary responsibility as well as authority to the departments to the greatest extent possible.

CEC (VSE) RESEARCH ACCOMPLISHMENTS AND VISION FOR NEXT FIVE YEARS

VSE has had enormous success over the past five years in its research accomplishments. Our faculty, research staff, and students are conducting impactful research and this is contributing to Mason's strategic goals in many ways, and advancing our mission as an R1 university. The VSE administration is working with our department chairs, center directors, and faculty to provide strong support for our research activities. Our Associate Dean for Research is engaged in leading all aspects of research support and administration centrally for VSE, and chairs the VSE Research Council. He is the primary VSE representative for Mason-wide research activities such as the Mason Research Council. In particular, he works very closely with the Vice President for Research, OSP, and other central Mason units to provide strong support for VSE and its researchers. Other support that VSE provides to faculty researchers includes proposal cost sharing; research space maintenance, expansion, renovation and leasing; developing large-scale research opportunities; and developing improved research policies and procedures.

During the past fiscal year, VSE set numerous records for research productivity:

1. Sponsored research expenditures grew by more than 11% to a record $64.5M,
2. Recovered indirect grew by over 7% to a record $6.7M,
3. Awards grew slightly by 0.44% to a record $75M.

Many of our faculty have been awarded significant research grants and contracts this past year, and to list them all here would take many pages. We recognize and profile our faculty (and student) researchers in many other ways, including on our web site, social media, in *The George* and our Annual Reports. I congratulate everyone on their successes. A brief listing of some of VSE's other notable research accomplishments over the past five years is given below. Unfortunately, space limitations prevent me from acknowledging everyone's individual contributions or the contributions of all of our centers, labs, and departments.

Selected Research Accomplishments

1. Research expenditures grew from $22.1M in FY17 to $64.5M in FY20, a 192% increase.
2. Research awards grew from $22.9M in FY17 to $75.0M in FY20, a 228% increase.
3. NSF HERD rankings for Mason in Computing rose from #44 in FY17 to #12 in FY19 (latest published rankings); in Engineering it rose from #157 in FY17 to #93 in FY19. Almost all computing and engineering research expenditures come from VSE research.
4. In 2019, AFRL awarded Mason the MADD contract, the largest research contract in Mason history. MADD initially supported the MUDLAN programs, but is broad enough to support a wide range of research. The MADD contract value is $320M. This research program is managed by VSE's Rapid Prototyping Research Center (RPRC).
5. Siddhartha Sikdar (Bioengineering) led a team that was awarded Mason's first NSF Research Trainee (NRT) award, valued at $3M, involving VSE, COS, and CHSS. The program is cross-training engineers, data scientists, and social scientists to use state-of-the-art data analytic methods and wearable computing technology to improve the quality of life of individuals living with chronic disabilities.
6. VSE faculty play a major leadership role in multi-disciplinary efforts across Mason. For example, Mason has five multi-unit university centers. VSE faculty lead three of them. COS and VSE have a joint seed grant program. Multi-disciplinary research has become part of VSE's culture.
7. VSE stood up a 4,000 square foot off-campus facility in which it is conducting highly classified research for the DoD. This is a key enabler to grow our applied research portfolio.
8. VSE greatly expanded its research space as a priority, working closely with Mason's VPR. Additional lab space was obtained in Krasnow for CEIE; in PSC for water-based research (primarily for CEIE and ME); in IABR primarily for BENG and ME but also for ECE. We are leasing 20,000 square feet of space at Innovation Drive near Sci/Tech primarily for ME but also for CEIE and ECE; we have added space in Peterson Hall for BENG, with tremendous cooperation from CHHS; and we added space in Research Hall primarily for CS. However, VSE is still woefully short of space for the size and breadth of its research portfolio. We are pro-actively working with Mason's administration to expand our space resources to meet our ever-increasing needs.
9. VSE played a leadership role working with VPR and COS to energize the expansion of core facilities, including fMRI, three electron microscopes, and a 2500 SFT Microfabrication Facility including a Class 1000 Clean Room. However, we are still woefully short of major lab equipment. Again, we are making large investments and playing a leading role at Mason in major research equipment and facilities, including high performance research computing.
10. We quickly restarted on-campus research after the COVID-19 shutdown in March 2020. Working with VPR, EHS, and other units, VSE was able to get virtually all faculty, staff, and students needing to be on campus safely back in their labs by July 2020.
11. VSE played a critical role supporting the UTSA proposal for CyManII, a DOE National Manufacturing Innovation Institute with $70M in funding from DOE with an additional $44M in cost-share funding. Mason is the East Coast HQ for CyManII, positioning us well for significant new research in advanced manufacturing and funding from DOE.

As discussed above, we have invested considerably in our research infrastructure and our faculty and students. Our trajectory is very promising for continued research success. A brief summary of our shared vision for the next five years is listed below.

Vision Highlights for Next Five Years

1. Continue our NSF HERD survey upward trajectory to become a top-10 university in Computer and Information Sciences and a top 75 university in Engineering.
2. Be widely recognized as one of the top five universities in the nation in cybersecurity research.
3. Have at least four CEC research centers with annual expenditures exceeding $7M.
4. Establish a large strategic research center with long-term funding by DoD and the Intelligence Community with annual expenditures exceeding $50M.
5. Be awarded an NSF ERC and an I/UCRC (this would be another mark of our growing stature).
6. Achieve at least $10M annually in sponsored research from DOE in advanced manufacturing and cybersecurity (leverage CyManII).
7. Achieve $125M in research expenditures annually.
8. Increase by 50% the amount of shared and private research lab space (IDIA building should help towards this goal).
9. Lead a vibrant computing-centric research program based in the new IDIA building with strong ties to the Northern Virginia commercial ecosystem.
10. Working with the VPR, SVP, and other academic units, have in place the research infrastructure (computing, administrative personnel and systems, core shared equipment, project management) commensurate to what is needed for an R1 university of our size and stature.
11. Provide greater support to individual faculty PIs, including support for proposal development and writing. Also, embed pre- and post-award research support in the departments.
12. Provide greater support to research centers, including bridge funding for key center personnel.

CEC (VSE) UNDERGRADUATE EDUCATION OVERVIEW: 2016 – 2021 AND BEYOND

Our undergraduate student enrollment trends since 2012 are given above, as well as a summary of our growth in academic programs. With the capable support of our VSE Undergraduate Office and Associate Dean for Undergraduate Programs, our undergraduate programs are thriving. Some other selected highlights are:

- Launch of the ADVANCE partnership with NOVA inspired by the Mechanical Engineering model: the Mason BSME/NOVA "Compact" developed by VSE led to ADVANCE
- ADVANCE pathways created for all CEC undergraduate majors
- Introduction of the "Undecided" classification to track these students differently from those who know what major they intend to declare and are working to qualify for that major
- ABET accreditation for ME, CYSE (first ABET-accredited CYSE program in the world)

Vision Highlights for Next Five Years

- Continued enrollment growth
- Launch of new programs – Computing BA/BS (BS possibly renamed from Applied Computer Science), Construction Management, Engineering Technology, others
- Expand and strengthen community college partnerships, including statewide TransferVA program
- Increase advising support to ensure all students have access to an excellent advisor with an appropriate caseload
- Increase access and success for underrepresented minorities and women

CEC (VSE) GRADUATE EDUCATION OVERVIEW: 2016 – 2021 AND BEYOND

VSE's total graduate enrollment had a relatively small positive (2%) change from 2016 to 2020. There has been some shift of enrollment from Master's programs to PhD programs. The new MS in Cybersecurity Engineering, as well as continuing robust enrollments in the MS in Data Analytics Engineering, should buoy our Master's enrollments. With continuing faculty hires and steadily increasing external research funding, more PhD students can be supported full-time. This trend is expected to continue, and will support increased ranking and visibility for CEC and for the university. As noted earlier, we have increased our support for graduate students through GRAs by 64% over the past five years.

The greatly increased attention on MS student recruitment and retention for TTIP-designated MS degrees (MS in Computer Science, MS in Software Engineering, and MS in Computer Engineering) should bolster CEC's production of Master's degrees. The potential introduction of the MS in Computing, now actively under development, is expected to increase MS enrollment significantly in the new School of Computing. VSE has created and launched detailed plans to achieve the university's TTIP-designated MS degree targets. These plans are being implemented with support from the Provost's Office.

In addition, new graduate degree programs, concentrations, and other credentials are being planned by the CEC departments. The CEC Office of Graduate Academic Affairs, led by the Associate Dean for Graduate Programs, coordinates and supports these efforts.

DIVERSITY AND INCLUSIVE EXCELLENCE PLANS AND VISION

Diversity, equity, and inclusive excellence (DEI) have been an important VSE priority for many years. Nation-wide events occurring at the end of the last academic year have also clearly revealed the importance of including anti-racism as a priority. I am proud that VSE has been a clear leader at Mason in this area. I also support the activities of several major professional societies, and maintain active memberships in SWE, NSBE, and SHPE. These organizations provide tremendous support of our students through an array of programs and leadership opportunities, and many of our faculty members are engaged in these societies as well. I also regularly participate in the CoNECD conferences (Collaborative Network for Engineering and Computing Diversity) to stay at the forefront of current research and practices to enhance diversity and inclusion of all underrepresented populations in the engineering and computing professions.

We have an extensive array of initiatives and programs to advance DEI in VSE, and we are very fortunate to have Chris Carr serving as our Chief Diversity Officer since August 2019. VSE was the first unit at Mason to have such a position at the associate-dean level. Chris's efforts have had a noticeable impact on our progress towards meeting our DEI goals, beginning with our achieving the Bronze level of recognition in the ASEE Diversity Recognition Program. The Bronze level is currently the highest level attainable.

VSE recently finalized an ambitious and comprehensive "Inclusive Excellence Plan – 2021-2024" that will guide our DEI activities and programs over the next three years. This 48-page plan shows our strong commitment to diversity, equity, and inclusion. Our plan looks to build, support, and improve our efforts to attract diverse populations that are underrepresented in engineering and computing; to create a diverse, equitable, and inclusive climate for all individuals to thrive; to recruit and retain strong faculty that respect our commitments and reflect our students; and to improve our efforts to develop the next generation of engineering and computing scholars. Due to space limitations, I will refer to this comprehensive document for those interested in learning more about our goals and vision to promote and advance a culture of inclusive excellence within CEC, and to support Mason's Anti-Racism and Inclusive Excellence Taskforce.

Chris Carr is also providing national leadership for DEI, and serves on three external committees as a Mason representative. He was recently elected Chair-Elect for the Minorities in Engineering Division of ASEE. He serves as the Conference Chair for the ASEE Southeastern Conference for 2023, to be held at Mason.

He also serves as the Operations Chair for the Academic & Research Leadership Symposium (co-located at the National Society of Black Engineers Annual Conference). Chris is actively involved in fundraising to support VSE DEI programs and students, working with our Advancement team. DEI is also a community responsibility – the success of our efforts depends upon each and every one of us. I hope that everyone can feel proud that we are providing strong leadership across our campus and in our professional communities to create a more just and prosperous society. We welcome your involvement and your support.

COMMUNICATIONS AND MARKETING EFFORTS 2016-21

Since establishing our communications program in 2013 and hiring the first Director of Communications and External Relations for VSE, we have greatly expanded our communications, marketing, and branding efforts, embracing a content-driven strategy. At the heart of every task or deliverable is the story about some aspect of our school, its people, and programs. These stories, and the photos that go with them, have revealed the amazing diversity of our School. Far more powerfully than data in tables, they demonstrate the rich mix of students and faculty. Known for the quantity and the quality of stories and news articles, our communications team averages two or three original postings each week. These items drive all of our efforts and products. Our stories are published in The George, in Mason News, and beyond on a regular basis. Some recent projects are highlighted here: annual reports and departmental publications, website development and support, branding and messaging, paid advertising, social media, VSExpress, and digital marketing. Over the next five years, content will continue to drive our communication tools and tactics. We aim to develop the branding and messaging of the College of Engineering and Computing and the School of Computing and refresh the Volgenau brand. We will build new websites for the College and School as well as three additional departments (IST, CS, and CYSE). With the addition of a graphic designer, we hope to create a unique and compelling visual style that elevates our work. Our communications team seeks to develop robust measures of engagement and lift our reputation to the next level.

ADVANCEMENT AND PHILANTHROPY

Over the past five years, VSE has raised over $8M from individuals and corporations. Working with our Advancement team, currently led by Interim Director Kira Woitek, I have helped to secure a planned gift of $2M for scholarships, a $1.5M donation from John and Nina Toups for faculty fellowships, student scholarships and lab space for the CEIE department, $200K from Jack and Mara Harrington for a dean's fund endowment, $120K from Mary and Felipe Rodriguez Educational Fund, $100,000 from Micron Technology, Inc. for a lab on the Science & Technology campus, $100K from the Beck Family Foundation for an additional faculty fellowship in Bioengineering; $50K from CACI for a satellite dish for the electrical engineering department, and many more gifts. There has also been an increase in endowed scholarships and support for student capstone projects, providing much needed funding for our students. I provide regular and personal stewardship of donors through events, private meetings, and personal communications. These are just a few notable examples of our advancement accomplishments. Moving forward, we expect to fill the open Director of Advancement position soon with a permanent director, and to build a larger team to prepare for Mason's next major campaign.

FINAL WORDS

Ten pages is not nearly enough space to detail all of our progress over the past five to ten years, nor to provide much detail about our vision for the next five years. Nevertheless, I do hope that two things are clear: 1) Our many successes are due to many people working together collaboratively, with good will and a common purpose, and 2) Our potential to do even more and to have a greater impact is tremendous.

The Future of Engineering and Computing is Here!