

28 111-84 (2009). Unlike the 1987 NDAA, the 2010 NDAA listed “other institutions of higher
29 education” as entities that the DoD should establish partnerships with HBCU/MIs to strengthen
30 their capacity to conduct research and perform contracts to support national security interests.
31 (10 USC 2362). Similarly, Section 233 of the NDAA of 2016 required the DOD to develop a
32 strategy to enhance its engagements HBCUs and other MIs.² (National defense Authorization
33 Act of 2016, Section 233, Public Law 114-92 (2015). Despite the ongoing attention to this issue
34 by Congress, in this author’s opinion, the DoD has not employed all authority granted by
35 Congress to better engage HBCUs in the research, development, testing and evaluation activities
36 to support national defense. One example of authority unused in the ability to provide priority of
37 funding to institutions that have not received a substantial amount of DoD funding.

38 Still, there are several federally-funded HBCUs/MIs-focused programs that should be
39 acknowledged. Described below are select examples of DoD and other federal agency activities
40 designed to increase engagement and partnerships with HBCUs/MIs. Also discussed below are
41 identified challenges that HBCUs/MIs face in increasing capacity and developing stakeholder
42 collaborations, as well as select best practices that may improve outcomes for these institutions.

43

44

OVERVIEW OF FEDERAL HBCU/MSI ACTIVITIES

45 Over the past two decades and in response to Congressional mandates, the DoD has
46 established several HBCUs/MIs-related programs. Select activities are discussed below.³

47

DOD HBCU/MI Capacity-Building Activities

48 **HBCU/MSI Science Program.** The DoD’s Office of the Under Secretary of Defense for
49 Research and Engineering (OUSDR&E)’s HBCUs and other MSIs Science program is a key
50 component of the Department’s engagement with HBCUs/MSIs. The program is designed in
51 increase research and educational capacity at HBCUs/MSIs. The purpose of the HBCU/MSI

² Another element of 10 USC 2362 excluded from the DoD strategy is *Priority for Funding*. Section 2362 states “the Secretary of Defense may establish procedures under which the Secretary may give priority in providing funding under this section to institutions that have not otherwise received a significant amount of funding from the Department of Defense for research, development, testing, and evaluation programs supporting the national security functions of the Department.” (DOD NDAA 233 Strategy) Even though the DoD has the authority to implement a *Priority of Funding* initiative for HBCU/MSIs, DoD has not yet developed such a program. (Testimony of Evelyn Kent before the National Academies Study group on June 15, 2021)

³ See DoD online resources for additional programs of interest.

52 Science Program is to 1) increase the research and educational capacity of HBCUs/MSIs, and 2)
53 to foster workforce diversity and entry of underrepresented minorities into science, technology,
54 engineering, and mathematics (STEM) disciplines important to national defense. This program is
55 coordinated with the Service research offices, and partners with DoD laboratories for the Centers
56 of Excellence. *(Citation: See Undersecretary of Defense for Research and engineering (2021)*
57 *retrieved from [Basic Research | Research Directorate > Programs > HBCU/MI Program](#)*
58 *([defense.gov](#))).* This program enhances HBCU research and education capabilities by providing
59 funds to conduct research in national security interest, allowing institutions to upgrade their lab
60 instrumentations, and devoting additional institution research time to preparing students for
61 critical skill positions in national defense areas of employment. Additional data is required to
62 conclude that the program has made significant increases in HBCU competitiveness in open
63 research and contract opportunities.

64 **Taking the Pentagon to the People.** The Taking the Pentagon to the People program is
65 an outreach effort designed to promote employment opportunities at the DoD to
66 underrepresented communities. Managed through the DoD's Diversity Management Operations
67 Center (DMOC), the program calls for expanded public and community outreach efforts through
68 internships, contracts, grants, scholarships, and research and development programs. The
69 program, which has offered more than 20 workshops since 2014, promotes an increasingly
70 significant presence of minorities and minority institutions in the STEM pipeline, return-on-
71 investment programs, and DoD workforce development initiative. The Department sustains
72 continuing goals of exposing minority institutions, their faculty, staff, administrators and
73 students to business and career opportunities within DoD. We envision participation from DoD
74 leaders and program managers, prime and small business contractors, administrators, faculty and
75 students from HBCU/MI, including Tribal Colleges and Universities, Asian American Native
76 American Pacific Islander Serving Institutions and community colleges. We look forward to
77 your support in furthering the mission of our nation's minority institutions, while exposing DoD
78 as an employer of choice *(Citation: [DOD Pentagon to the People](#)*
79 *([2014takingthepentagontothepeople.com](#))).*

80 **Technical Assistance Workshops.** The OUSD(R&E) offers technical assistance
81 workshops as part of a series of training and educational activities intended to provide program,
82 process, and funding opportunity information to MSIs. The workshops focus on DoD funding

83 opportunities and best practices in writing effective technical proposals. Representatives from the
84 OSD, Army, Navy, Air Force, and other federal agencies, present funding opportunities and
85 share insights on writing competitive proposals. (([OUSD\(R&E\) website](#))).

86 **Centers of Excellence.** The DoD HBCU/MI Program established nine Centers of
87 Excellence (COE).⁴ The COEs for autonomy, cyber security, and research data analytics were
88 awarded in 2015 and are now in the fifth year of a five-year program. The COE for STEM
89 Scholars was awarded in December 2017 and is funded at \$1 million per year for four years. The
90 Minority Women in STEM COE was awarded in July 2019 and is funded at \$2 million with a
91 four-year performance period. The 2020 established centers will conduct cutting-edge research in
92 defense priority areas over a five-year period centering on artificial intelligence and machine
93 learning, aerospace, quantum sensing, and fully networked command control, and
94 communications.

95 **DoD Mentor/Protégé Program.** Established in 1990, the **program** provides incentives
96 to major DoD contractors to furnish disadvantaged small business concerns with assistance
97 designed to enhance their capabilities to perform as subcontractors and viable suppliers under
98 DoD Contracts and other Federal Government and commercial contracts. ([Mentor-Protégé
99 Program \(defense.gov\)](#)). HBCUs have been added to mentor teams and to provide training and
100 other assistance to protégés. ([Mentor-Protégé Program Policy and Procedures Manual FY 2016.pdf
101 \(army.mil\)](#)). The DoD scorecard does not include performance goals and outcomes for HBCUs.
102 ([Goals and Performance \(defense.gov\)](#))

103 **Targeted Funding for HBCUs/MSIs.** In addition to the DoD programs described above,
104 Congress provides a specified amount of targeted funding to support education, research, and
105 equipment programs for HBCU/MSIs. The amount for FY2021 is \$80,000,000 and is to be
106 awarded to HBCU/MSIs through a competitive process. Some of these funds are dispersed
107 across DoD service branches (Air Force, Navy, Army) and DoD agencies (DARPA, DTRA) to
108 be used to support a range of investments in HBCUs/MSIs, including through fellowships,

⁴ North Carolina A&T State University (Autonomy); Norfolk State University (Cyber Security); Prairie View A&M University (Research Data Analytics); Hampton University (STEM Scholars); Spelman College (Minority Women in STEM); Howard University (Artificial Intelligence and Machine Learning); Tuskegee University (Aerospace Education, Research, and Innovation Center); Delaware State University (Advanced Quantum Sensing); University of California, Riverside (Networked Configurable Command, Control, and Communications for Rapid Situational Awareness).

109 research support, and equipment grants. Based the author’s research, the total DoD financial
110 investments and allocations in HBCU/MSIs is difficult to obtain using current and publicly
111 available databases. As the amount of funds allocated by Congress for HBCUs and MSIs
112 increases, there are additional opportunities for HBCUs and MSIs to conduct research and
113 provide national defense related education to a diverse student body and prepare them for work
114 in national defense areas.

115 **DOD HBCU/MI Capacity-Building Activities: Metrics and Outcomes**

116 There are several metrics that could be employed to determine the outcomes and success
117 of DoD sponsored HBCU/MSI capacity building programs. The author has reached out to DoD
118 program managers at three programs, including Pentagon for the People, the DoD
119 Mentor/Protégé Program, and the Army Research Office’s Technical Assistance Workshops, to
120 determine how they measure success in their particular programs. More specifically, a request
121 was made to review data in the categories below:

- 122 • White papers presented
- 123 • Proposals submitted
- 124 • Grants and contracts awarded

125
126 For the above three programs, metrics were not readily available for share, and the only
127 program metrics made available were the number of program participants across funding
128 periods. Looking ahead, as the DoD continues to encourage and activities to increase
129 HBCU/MSI research capacity and funding success, additional programmatic metrics should be
130 measured and reported, programs should be evaluated for their success in increasing HBCU/MSI
131 research and contract awards, and successful completions should be tracked. Additional metrics
132 and outcomes may include:

- 133 A. Number of Effective Partnerships
- 134 B. Number of White Papers Presented to DoD
- 135 C. Number of Proposals Presented to DoD
- 136 D. Number of DoD research and contract Awards to HBCU/MSIs

137

138 **Other Federal HBCU/MI Activities**

139
140 Other federal agencies have also developed programs with the goal of increasing research
141 capacity, investment, and infrastructure at HBCUs/MIs, including several described below.
142

143 **National Institutes of Health:** Launched in response to Executive Order (EO) 13779:
144 The White House Initiative to Promote Excellence and Innovation at Historically Black Colleges
145 and Universities (2017), the *National Institutes of Health (NIH) Path to Excellence and*
146 *Innovation for HBCUs (PIE)* is a program designed to enhance NIH engagements with HBCUs.
147 The mission of the PEI Initiative is to empower HBCUs with the knowledge, resources, and
148 skills they need to effectively and consistently compete for and win contracts from the NIH. The
149 program currently includes 21 HBCUs and 42 businesses for the 2021 cohort (*Citation: Paving*
150 *the Path to Excellence in Innovation for Historically Black Colleges and Universities*, [PowerPoint](#)
151 [Presentation \(nih.gov\)](#) (2021))
152

153 **NATIONAL INSTITUTES OF HEALTH**

- 154
- 155 • [National Institutes of Health’s Innovative Programs to Enhance Research Training](#)
156 [\(IPERT\).](#)”The IPERT program supports creative and innovative research educational
157 activities designed to complement and/or enhance the training of a workforce to meet the
158 nation’s biomedical research needs.”
159

160 **NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

- 161
- 162 • [NASA’s Minority University Research and Education Project.](#) “Through MUREP
163 activities, NASA supports Historically Black Colleges and Universities (HBCU),
164 Hispanic Serving Institutions (HSI), Asian American and Native American Pacific
165 Islander Serving Institutions (AANAPI), Tribal Colleges and Universities (TCU), and
166 other minority serving institutions, through multi-year research grants. Additionally,
167 MUREP provides internships, scholarships, fellowships, mentoring, and tutoring for
168 underserved and underrepresented learners in K-12, informal, and higher education

169 settings.”

170

171 • **National Aeronautics and Space Administration (University Leadership Initiative).**

172 “ULI was created to initiate a new type of interaction between NASA Aeronautics
173 Research Mission Directorate (ARMD) and the U.S. university community, where
174 American universities take the lead, build their own teams, and set their own research
175 paths. This initiative seeks new, innovative ideas that can support the NASA ARMD
176 portfolio and the U.S. aviation community. Strategic goals include: Provide broad
177 opportunities for students at different levels, including graduate and undergraduate, to
178 participate in aeronautics research and Promote greater diversity in aeronautics through
179 increased participation of minority-serving institutions and underrepresented university
180 faculties in ULI activities.”

181

182 **DEPARTMENT OF ENERGY**

183

184 • **Department of Energy’s Minority Serving Institution Partnership Program**

185 **(MSIPP).** “The MSIPP is designed to build a sustainable pipeline between the
186 Department of Energy’s (DOE) sites/labs and minority-serving institutions in STEM
187 disciplines, and bring a heightened awareness of NNSA plants and laboratories to
188 institutions with a common interest in STEM research fields. Currently, MSIPP supports
189 17 consortium-based teams consisting of participants from select institutions.”

190

191 • **Department of Energy (Massie Chairs of Excellence):** The US Department of Energy
192 created the Dr. Samuel P. Massie Chairs of Excellence in 1994, which provide African
193 American students with an opportunity to pursue research in environmental studies. In
194 1998, Dr. Massie was named one of the 75 most distinguished chemists of the 20th
195 century. He was one of the three African Americans honored with this distinction.

196

197 **NATIONAL SCIENCE FOUNDATION**

198

199 • **National Science Foundation. Centers of Research Excellence in Science and**

200 [Technology \(CREST\) and HBCU Research Infrastructure for Science and Engineering](#)
201 [\(HBCU-RISE\)](#): “The Centers of Research Excellence in Science and Technology
202 (CREST) program provides support to enhance the research capabilities of minority-
203 serving institutions (MSI) through the establishment of centers that effectively integrate
204 education and research. MSIs of higher education denote institutions that have
205 undergraduate enrollments of 50% or more (based on total student enrollment) of
206 members of minority groups underrepresented among those holding advanced degrees in
207 science and engineering fields: African Americans, Alaska Natives, American Indians,
208 Hispanic Americans, Native Hawaiians, and Native Pacific Islanders. CREST promotes
209 the development of new knowledge, enhancements of the research productivity of
210 individual faculty, and an expanded presence of students historically underrepresented in
211 science, technology, engineering, and mathematics (STEM) disciplines. CREST
212 Postdoctoral Research Fellowship (PRF) awards provide research experience and training
213 for early career scientists at active CREST Centers. HBCU-RISE awards specifically
214 target HBCUs to support the expansion of institutional research capacity as well as the
215 production of doctoral students, especially those from groups underrepresented in STEM,
216 at those institutions.”

- 217
- 218 • [Historically Black Colleges and Universities - Undergraduate Program \(HBCU-UP\)](#).
219 “HBCU-UP provides awards to strengthen STEM undergraduate education and research
220 at HBCUs. Support is available through the following tracks: **Broadening Participation**
221 **Research (BPR)** in STEM Education projects, which provide support for research that
222 seeks to create and study new theory-driven models and innovations related to the
223 participation and success of underrepresented groups in STEM undergraduate education;
224 **Research Initiation Awards (RIA)**, which provide support for STEM faculty with no
225 prior or recent research funding to pursue research at the home institution, a NSF-funded
226 research center, a research intensive institution, or a national laboratory; **Broadening**
227 **Participation Research Centers (BPRC)**, which provide support to conduct broadening
228 participation research at institutions that have held three rounds of Implementation or
229 ACE Implementation Projects and with demonstrated capability to conduct broadening
230 participation research.”

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- **Small Business Administration (Mentor Protégé Program):** Program designed to help eligible small businesses (protégés) gain capacity and win government contracts through partnerships with more experienced companies (mentors).

**KEY CHALLENGES FOR HBCUS/MSIS IN EXPANDING FUNDING,
INFRASTRUCTURE, PARTNERSHIPS, AND CAPACITY**

Despite the current efforts by DoD and other federal agencies to engage and support HBCUs/MIs, these institutions face a number of foundational and institutional challenges, including related to funding, infrastructure, capacity, that serve as barriers to advancing their work, including developing collaborations. Examples of challenges, as described in a 2021 NIH white paper, *Paving the Path to Excellence and Innovation for Historically Black Colleges and Universities a White Paper from the National Institutes of Health*, are described below.

Securing government funding, which can be a complex and protracted process, is particularly challenging for HBCUs/MIs. While HBCU/MIs are also renowned for their research and educational programs, they often lack the business experience required to fundraise successfully.

Most HBCUs/MIs also lack a dedicated acquisition resource. In many cases, it is up to the research faculty to manage the procurement process on their own, which is challenge given competing priorities and limited time and resources. Typically, these institutions are not trained on how the process works. As a result, many opportunities to collaborate are missed or are stalled (*Citation: Paving the Path to Excellence and Innovation for Historically Black Colleges and Universities a White Paper from the National Institutes of Health* [PowerPoint Presentation \(nih.gov\)](#) (2021))

Additionally, faculty salaries at HBCUs are also at least 20 percent lower than other institutions (*Clay, HBCUs facing the future, Historically Black Colleges and Universities: Facing the Future - Kresge Foundation* (2012)). HBCU faculty members teach more classes, and expectations

260 for faculty engagement on campus have increased, making it more challenging to focus on
261 writing proposals or developing collaborations. This difficulty is expected to increase in the
262 coming years as retirements erode the committed core of senior scholars. (CITATION: Clay,
263 *HBCUs facing the future*, [Historically Black Colleges and Universities: Facing the Future - Kresge](#)
264 [Foundation](#) (2012))

265 These funding challenges faced by HBCU/MSIs are well recognized as major barriers
266 that have grown out of inequitable practices in federal and state funding and the inability to
267 compete with larger and more well-resourced Primarily White Institutions (PWIs). (CITATION:
268 Brown, Z., Williams, J. & Esters, L. (2021). Presidents and their strategies to build partnerships
269 at HBCUs. New Brunswick, NJ: Samuel DeWitt Proctor Institute for Leadership, Equity, &
270 Justice.) As Gasman (2014) notes, HBCUs have struggled with the procurement of both private
271 and public grants due to a lack of infrastructure, including in the grant writing and grant
272 management area.-In fact, in some cases, HBCUs have not applied for federal grants even when
273 there are earmarks for these institutions — due to a lack of awareness about the opportunity or
274 limited grants support (CITATION: Gasman, [A need for strategy and investment in HBCUs | TheHill](#)
275 (2014))

276

277 HBCU/MSI BEST PRACTICE OPPORTUNITIES

278 Despite these significant challenges, it is this author’s position from ## years of
279 experience in the field of HBCU/MI collaborations, that there are select best practices that could
280 yield positive outcomes for HBCU/MIs. These current best practices include:

281 **Partnerships with Industry, Federally Funded Research and Development Centers**
282 **(FFRDCs), University Affiliated Research Centers (UARCs), and Other PWIs.** The most
283 effective and efficient way to enhance HBCU/MI engagements and strengthen their capacity to
284 compete for DoD funded opportunities is by forming and managing partnerships with entities
285 that conduct a substantial amount of DoD research and contracts. Since many HBCU/MSIs have
286 limited success forming substantively mutually beneficial partnerships with these entities, there
287 is a prime opportunity for DoD to make these partnerships a priority, provide incentives for their
288 success, and hold all parties accountable for the partnerships reaching their stated objective.

289 **A Clear Understanding of the Academic R&D Enterprise and Its Potential for**
290 **Institutions, including Entrepreneurship Activities.** Based on my expertise, there is a need for
291 greater understanding in various HBCU/MSIs of how the academic research and development
292 enterprise has elevated institutions of higher learning, and how it can grow the institution, and
293 provide additional STEM-focused opportunities, include entrepreneurship activities, for both
294 faculty and students.

295 At most HBCU/MIs, faculty are not entrepreneurial, and have neither experience nor
296 interest in business development activities. This coupled with what has traditionally been the
297 lack of adequate resources to participate in professional meetings, many faculty members have
298 been limited to responding to requests for proposals, without any relationship with program
299 managers to obtain a better understanding of the agency's goals and challenges. Based on my
300 experience, additional investments and support in building entrepreneurial capacity would be
301 beneficial to many HBCU/MIs. Additionally, continued investments and engagements between
302 the DoD, DoD partners, and the HBCU/MI community would be beneficial to all parties.

303 **Current and High-level Knowledge and Understanding of DoD Culture, Research**
304 **Priorities, Issues and Challenges.** Many HBCU/MSIs lack knowledge of the challenges DoD
305 and the military face as well as an understanding of DoD processes. Without an understanding of
306 the agency's mission and challenges, and funding structures and processes, it is difficult to
307 present workable and fundable solutions.

308
309 **Strengthening HBCU Research and Contract Infrastructure.** Many HBCU/MSIs
310 have struggled with grant and contract pursuit and acquisition due to a lack of or inadequate
311 support. Increased investments in their grants and contracts management area could provide the
312 necessary ingredients for greater research and contracts success and relieve the burden of faculty
313 members with heavy teaching loads. In addition, one of the most frequently mentioned
314 challenges to HBCU/MSI participation in federal grants and contracts is the lack of adequate
315 support from their sponsored programs office. Some institutions have limited sponsored
316 programs offices, and some have none. Innovative approaches to expanding or sharing sponsored
317 programs offices would help to address this challenge for most, if not all institutions.

318

319 **EXPANDING PARTNERSHIPS AND COLLABORATIONS WITH HBCUs/MSIs**

320

321 As noted in the examples above, establishing and expanding partnerships and
322 collaborations with HBCUs/MIs is critical to strengthening engagement with DoD and other
323 federal partners, and to expand their research capabilities and infrastructure. Intermediaries such
324 as Tougaloo College Research and Development Foundation (TCRDF) work to broker strategic
325 partnerships to support the missions of Tougaloo College and other HBCUs.⁵ For example,
326 TCRDF has worked to form a partnership between Toogaloo College and Mississippi State
327 University (MSU) to collaborate on the development and drafting of research proposals. MSU
328 has also agreed to serve as a mentor to Tougaloo College and other HBCUs, offering technical
329 assistance and, where possible, expertise to build and enhance capabilities.

330 Industry partnerships are also important for building institutional capacity. As one
331 TCRDF-brokered example of success, Deloitte has signed a partnership agreement to support
332 Tougaloo College’s Cybersecurity Initiative, and provides collaborative opportunities to work
333 together on on research proposals and other activities.

334 TCRDF has also signed a contract with Georgia Tech Research Institute (GTRI) to form
335 and manage GTRI/HBCU agreements to conduct work on a \$2.5 billion Army contract. This
336 contract was negotiated under a key TCRDF collaborative initiative called the
337 *HBCU/MSI/University Affiliated Research Center (UARC) Initiative*.⁶ This initiative (launched
338 in XXXX) is an effort to establish and manage partnerships between HBCU, Minority Serving
339 Institutions, and UARCs or DoD research centers aligned with a university.

340 To date, there are two formal HBCU/MSI- UARC partnership opportunities that are still
341 under development. Although there are no public evaluations or metrics of success to share, I
342 describe these partnerships below in an attempt to illustrate their potential for mutual benefit
343 between research partners.

⁵ Over the past three years, TCRDF has secured \$2.25 million in funding for Tougaloo College, including from the Department of Energy, Minority Business Development Agency, and US Army, among others (Citation). Add here: online reference to TCRDF’s mission and full list of initiatives.

⁶ reference.

344

345

HBCU/UARC Partnerships

346 The DoD has indicated a strong interest in expanding UARCs/HBCU partnerships. Two
347 examples of current UARC/HBCU partnerships are described below, including the Applied
348 Research Laboratory for Intelligence and Security (ARLIS) at the University of Maryland and
349 the Georgia Tech Research Institute (GTRI), are discussed below.

350 ARLIS's core mission is to support the government's security and intelligence
351 communities.⁷ It aims to integrate social and behavioral sciences, AI and computing for a new
352 Human Domain applied research and development capabilities. ARLIS aims to establish
353 foundational partnerships with USG entities that leverage our core competencies and
354 advance RDT&E activities in areas of critical need. ARLIS focuses on applied and
355 translational research for the DoD and IC and provides trusted support to USG program
356 managers and agencies across these communities in areas of national need. In 2020, ARLIS
357 created the Intelligence and Security University Research Enterprise (INSURE), an
358 academic research consortium to further its mission as a UARC supporting the Defense
359 Security Enterprise (DSE) and the IC. Consortium partners are selected based on symbiotic
360 institutional strengths, with a track record of conducting applied, quick-turn, mission-
361 relevant R&D, and offering unique capabilities for training the current workforce and
362 growing the workforce of the future. Initial consortium members include George Mason
363 University, Howard University, Morgan State University, Texas A&M University,
364 University of the District of Columbia, and the University of Wisconsin in Madison. ([HOME](#)
365 [| UMD ARLIS Website](#) (2021))

366 GTRI develops advanced technology solutions and large-scale system prototypes to
367 address national security, economic development, and other key challenges.⁸ Founded in 1934 as
368 the Engineering Experiment Station, GTRI has grown to more than 2,700 employees supporting
369 eight laboratories in over 20 locations around the country and performs more than \$660 million
370 of problem-solving research annually for government and industry. GTRI's core competencies

⁷ . Information for this section for ARLIS was gleaned from the ARLIS site ([HOME | UMD ARLIS Website](#)) and conversations with the ARLIS executive Director.

⁸ Information for GTRI is based on the author's work in proposing and managing the GTRI/TCRDF partnership.

371 include basic and applied research, human systems integration, development and prototyping of
372 high-performance computing architecture and optimization tools for complex system modeling,
373 simulation and performance analysis, basic and applied research in aerodynamics and flow
374 control, aeroacoustics and computational aeroelasticity. ([Home | GTRI \(gatech.edu\)](#) (2021)) One
375 important aspect of the GTRI HBCU/MSI research partnership is the supporting sponsor. The
376 sponsor tasks and provides GTRI with support to identify HBCU/MSI research partners. This is
377 one of TCRDF's role in the GTRI/TCRDF partnership along with serving as an honest broker
378 between GTRI and their HBCU/MSI research partners. This, along with frequent feedback
379 sessions that include GTRI, TCRDF, and the funding sponsor, increases the probability of
380 success finding and supporting HBCU/MSI research partners.

381

382 **AUTHOR'S OVERALL REFLECTIONS ON COMMISSIONED TOPIC**

383

384 Congress has consistently displayed an interest in the DOD enhancing engagements with
385 HBCU/MSIs. Since 1987, Congress has stated that intent and has provided authority for the DoD
386 to increase research and contract awards to HBCU/MSIs. However, the DoD has yet to utilize
387 the granted authority to its fullest capacity. The author notes that arguably one of the most
388 effective and efficient means to increasing HBCU/MSI capacity to support national defense
389 interests through research grants and contract awards is by forming and managing research and
390 contract partnerships between HBCU/MSIs and entities that receive substantial research and
391 contract awards from the DoD. This includes, but is not limited to, University Affiliated
392 Research Centers (UARCs), Federally Funded research and Development Centers (FFRDCs),
393 Federal Contractors, and predominately White Institutions the receive substantial amounts of
394 Defense funding. Congress has consistently made that suggestion to the DoD but has not made
395 that a requirement. It is critical that DoD forms and manages new partnerships with HBCU/MSIs
396 and is provided with the required incentives and resources to ensure that the agency can establish
397 meaningful engagement with these institutions.

398

399 **Appendix A**

400

401

402 **John Rosenthal, President, Tougaloo College Research and Development Foundation.**

403 The Tougaloo College Research and Development Foundation’s purpose is to support the
404 development mission of Tougaloo College and other HBCUs. The Foundation fulfills its mission
405 by helping institutions secure and execute federal and private sector grants and contracts, and by
406 facilitating partnerships with the private sector. The Foundation also supports government
407 relations efforts in Congress and federal agencies. Rosenthal, a U.S. Army veteran, graduated
408 from Tougaloo College with a Bachelor of Science degree in Mathematics and from George
409 Washington University with a Juris Doctorate degree. Most of his career has been dedicated to
410 working with or for HBCUs or a consortium of HBCUs. He has served as Director of the Urban
411 Environment Institute at Howard University, Vice President for Research, Economic
412 Development and Public Service, and Executive Director of 1890 Program at South Carolina
413 State University, and Vice President for Research, Advancement and Economic Development at
414 Grambling State University.

415