

**PAVING THE PATH TOWARD
EXCELLENCE & INNOVATION
FOR HISTORICALLY BLACK COLLEGES &
UNIVERSITIES**

A STRATEGIC PLAN

**PUT FORTH BY
THE NATIONAL INSTITUTES OF HEALTH (NIH) SMALL BUSINESS PROGRAM
OFFICE**



TABLE OF CONTENTS

INTRODUCTION	3
A FIRST STEP TOWARD MEANINGFUL CHANGE.....	3
EXECUTIVE SUMMARY	4
OVERVIEW	5
VISION	5
MISSION	5
VALUE STATEMENT	5
THE OPPORTUNITY	5
THE IMPORTANCE.....	6
THE POWER OF COLLABORATION.....	6
RESULTS MATTER.....	6
STRATEGIC GOALS	7
GOAL 1	7
GOAL 2	8
GOAL 3	9
IMPLEMENTATION STRATEGIES.....	10
IMPLEMENTATION FRAMEWORK.....	10
STANDARD OPERATING PROCEDURES	13
CONCLUSION.....	17
APPENDICES	18
APPENDIX A.....	19
TECHNICAL APPROACH: DUE DILIGENCE.....	19
GAP ANALYSIS REPORT.....	19

INTRODUCTION

A FIRST STEP TOWARD MEANINGFUL CHANGE

Doing anything meaningful always begins with a first step. That first step can be broken down into four parts: seeing, feeling, thinking, and being. Just like a string quartet, all these elements work in harmony to produce something greater than their sum, which must happen collectively. Something that moves things forward in new and inspiring ways.

Let's take a moment to unpack what that means for the strategic plan that follows—a high-level road map for getting Historically Black Colleges and Universities a seat at the table for more National Institutes of Health contract awards.

Annette Owens-Scarboro, Program Manager for the Small Business Program Office

EXECUTIVE SUMMARY

The National Institutes of Health (NIH) is the largest biomedical research organization in the world. NIH's 27 institutes and centers annually obligate approximately \$6 billion in contract awards to support the NIH mission; however, less than 1% of NIH's contract awards are obligated to Historically Black Colleges and Universities (HBCUs).

Following the Presidential Executive Order (EO) 13779 *The White House Initiative to Promote Excellence and Innovation at HBCUs*, the NIH Office of Acquisition and Logistics Management (OALM) established the **Path to Excellence and Innovation Initiative (PEI)** as a comprehensive program to accomplish the goals prescribed in the Presidential Executive Order.

In 2017, Ms. Diane J. Frasier, the NIH Head of Contracting Activity and the OALM Director, awarded an 8(a) contract to formalize the Path to Excellence and Innovation (PEI) Pilot Program. The PEI Pilot Program consisted of six HBCUs teamed with business partner(s) to increase the HBCUs' research capacity and encourage their pursuit of NIH contract opportunities.

In fiscal year 2021, the Path to Excellence and Innovation (PEI) Initiative will begin offering more extensive acquisition training and technical assistance for HBCUs. The expanded program also will foster partnerships between HBCUs and businesses. The ultimate goal of the next phase of the PEI Initiative will be to assist the Small Business Program Office in empowering HBCUs to secure 2% of NIH contracts.

This strategic plan establishes the course of action for executing the strategies and tactics that will be implemented in achieving the identified goals and objectives, which support to overall vision and mission of the NIH Small Business Program Office.

Details of the assessments that influenced the development of the strategic plan are provided in the Appendix.

OVERVIEW

VISION

A future where HBCUs and the Federal government become indispensable partners and the Path to Excellence and Innovation (PEI) Initiative is synonymous with making that happen.

MISSION

- Establishing how the NIH intends to increase the capacity of HBCUs to compete effectively for grants, contracts, or cooperative agreements is part of the SBPO's mission. Toward that end, the PEI Initiative will focus exclusively on increasing the capacity of HBCUs to compete for contracts.
- In regards to identifying Federal programs and initiatives where HBCUs are not well represented the PEI Initiative will leverage HBCUs' participation in those programs and initiatives to positively impact contracting capability with the NIH.
- Develop a reference manual and curriculum on how to do business with the Federal Government for the schools.
- Develop WIN strategies using existing small business rules and regulations to leverage potential opportunities.
- Encourage public-sector, private-sector, and community involvement in improving the overall contracting capacity of HBCUs.
- Seek contract awards to continue the contract support for the initiative.

VALUE STATEMENT

We care about the well-being of every person, we pursue excellence in everything we do, we honor and embrace diversity, we listen to our people, we allow them to make decisions and empower them to act.

THE OPPORTUNITY

There is a tremendous opportunity for the NIH to work more collaboratively with HBCUs and small businesses. Today there are 101 HBCUs in the U.S. Currently, only three have contracts with the NIH. That's less than 1% of the agency's annual overall contract awards dollars.

At 1% of NIH funding, it's clear that HBCUs are not getting the opportunity to collaborate with the NIH to the degree that they should—nor is the NIH (or the nation) experiencing the full benefit of what HBCUs can offer to continue the advancement of public health.

THE IMPORTANCE

Both HBCUs and the NIH share a long history of successful advancements in healthcare. Founded in 1887 (one year after the first HBCU, incidentally), the NIH is the world's largest public funder of biomedical research. The agency invests more than \$32 billion a year to improve human life—and reduce sickness and disability. It is devoted to exploring every possible avenue to helping people live their longest, healthiest lives.

HBCUs share a similar tradition of contributing to the nation's public health—as well as diversifying the healthcare profession. For example, the Morehouse School of Medicine, founded in 1975, is recognized as being among the nation's leading educators of primary care physicians. Clark Atlanta University is home to the largest, most comprehensive academic prostate cancer research enterprise in the United States.¹ And, according to a report from the National Science Foundation, Howard University is the top generator of African- American undergraduates earning science and engineering Ph.Ds., yielding 220 in 2013—just one graduate shy of the 221 that Stanford, Harvard, MIT, and Yale produced combined.²

But for all the progress and diversity HBCUs bring to American health, their partnerships have been historically limited: HBCUs have not secured more than 1% of the NIH's annual acquisition award funding. Increasing that number would not only enable the NIH to be in compliance with Executive Order #13779 (for all Federal Agencies to support excellence and innovation within HBCUs), it would also advance the NIH's mission to help the American people live their longest, healthiest lives.

The NIH SBPO put the PEI Initiative in place as a vehicle to increase the number of awarded contracts to 2%.

THE POWER OF COLLABORATION

The partnership between Hampton University and the National Cancer Institute (NCI) is a case study that shows the power of collaboration. Advocates at the NCI tirelessly championed Hampton, the only HBCU to establish one of the 27 proton therapy centers in the United States. As a result, Hampton University became the first HBCU to become a member of the NCI's Quantitative Imaging Network. This led to a \$2 million contract for cancer research.

RESULTS MATTER

The final measurement is the results. This plan documents the desired end game and the steps that are to be taken to make that happen. The PEI Initiative is the SBPO's method for *Paving the Path Toward Excellence and Innovation for Historically Black Colleges and Universities*. To reiterate: the goal for this first step is to facilitate the HBCUs' ability to obtain 2% of NIH contract awards.

¹ Clark Atlanta University. (2019, April 12). The Atlanta University Center Consortium Celebrates 90 Years of Collaborative [Press release]. Retrieved from <http://www.cau.edu/news/2019/04/cele-brates-90-years-of-collaborative-learning.html>. ² Fiegenger, Mark K., Proudfoot, Steven L. (2013). Baccalaureate Origins of U.S.-trained S&E Doctorate Recipients. Arlington, VA: National Science Foundation.

STRATEGIC GOALS

GOAL 1

Increase HBCUs' Capacity to Successfully Compete for NIH Contract Awards

Current Challenge

Many HBCUs are not aware of the services that the SBPO provides. Additionally, the current processes being used by the HBCUs to obtain contract awards are better suited to pursue and manage grants than contracts.

Initiative #1:

Provide HBCUs with information about how Federal contracting works in the NIH context.

Initiative #2:

Provide guidance to HBCUs to assist them in streamlining and standardizing their internal research administration processes to reduce the number of stalled or lost opportunities.

Initiative #3:

Cultivate HBCU senior management's commitment and action to obtain contract awards from the Federal government.

Initiative #4:

Establish chains of communication between HBCUs and the SBPO to promote stronger relationships so HBCUs can take full advantage of the NIH's services.

GOAL 2**Improve Collaboration Among HBCUs, NIH and Small Businesses****Current Challenge**

Strong teamwork is essential to obtaining Federal contract awards. Currently, there is no defined process, and therefore, communication and collaboration are lacking between HBCUs and businesses. This leads to less-than-optimal levels of strategy, accountability, and collaboration—ultimately resulting in lost opportunities.

Initiative #1:

Define and standardize processes so HBCUs and businesses can more effectively communicate and collaborate to obtain Federal contract awards.

Initiative #2:

Leverage technology to enable transparency around streamlined processes and drive collaboration.

Initiative #3:

Define and standardize the SBPO's role as process subject matter experts and agents that partner HBCUs and businesses to effectively obtain Federal contract awards.

GOAL 3**IMPROVE THE SBPO'S EFFICIENCY, EFFICACY, AND CAPACITY TO ACCOMPLISH ITS MISSION****Current Challenge**

The SBPO has a strong track record of success. However, it is committed to better serving HBCUs and their business partners by addressing limited resources, outdated technology, and legacy processes.

Initiative #1:

Streamline key SBPO processes to eliminate bottlenecks, close infrastructure gaps, and increase overall operational efficiency.

Initiative #2:

Design and implement an automation strategy to eliminate manual tasks, speed throughput, and reduce project delays.

Initiative #3:

Document improved business processes and create standard operating procedures (SOPs) to enforce consistency and promote accountability.

Initiative #4:

Reduce or eliminate rework and errors in order to improve the quality of communication and delivery.

IMPLEMENTATION STRATEGIES

IMPLEMENTATION FRAMEWORK

Reach the Goals

To accelerate the achievement of each goal, it will be important for the Business Partners (BPs) and the HBCUs to adopt a standardized approach within their own organizations. As part of the PEI Initiative, the NIH SBPO has engaged a four-phased approach to improve the organization's internal business processes and assist the BPs and HBCUs to do the same.

This approach is based on demonstrated methods in business transformation competencies and process improvement tools, applied across commercial and government organizations. As described below, the framework gives a defined structure that will help ensure all involved in the PEI Initiative will be able to reach the desired goals.

Four Phased Framework

I. ASSESS

Assess the current capabilities of the organization in order to determine opportunities for improvement and establish a baseline against which to measure progress. Identify challenges and gaps that will become opportunities for improvement and create a "roadmap" for increased efficiency that will be used by the BPs and HBCUs to improve their current operations and thereby increase their contract win-rate.

Key Activities

- Create a Value Stream Map of current processes
- Conduct an analysis of value and non-value activities
- Identify opportunities for improvement
- Identify countermeasure strategies to counteract inefficiencies
- Define a desired operating model

Key Outputs

- Quantifiable baseline
- Defined opportunities for improvement
- Implementation Roadmap

II. DESIGN

Design the future, more efficient operating model, and define the necessary infrastructure to support it, including governance and operating procedures.

Key Activities

- Define the top three opportunities for improvement
- Create opportunity project charters
- Conduct NIH SBPO intro training
- Identify key performance indicators (KPIs)
- Pilot one high return area

Key Outputs

- Implementation project plan
- Implementation governance structure
- Baseline training

II. IMPLEMENT

During this phase, the organization identifies in-house teams to achieve more efficient and effective processes. This is accomplished by implementing the countermeasures identified in the previous phase through the use of the project teams. Execution of the projects will create a new way of work designed to ensure repeatable processes that will win contracts.

Key Activities

- Setup a Transformation Program Office
- Establish SBPO/BP/HBCU Teams
- Learn by doing coaching, mentoring, tech implementation
- Measure the new Way-of-Work (WoW)
- Automate where possible

Key Outputs

- Reduced overall cycle times
- Increase quality
- Reduce costs

III. SUSTAIN

The success of the Path to Excellence and Innovation Initiative hinges on the ongoing ability for the organizations to implement improved processes, document those, and continuously improve upon them. The name of the program itself denotes the concept of seeking new and better ways of achieving the goals of the organization. The Sustain Phase puts in place metrics, policies, and procedures and governance to ensure the organizations to not slip back into unproductive practices.

Key Activities

- Ensure continuous improvement loop is in place
- Ensure metrics dashboard in place
- Test and measure organic capability
- Implement the use of standard operating procedures (SOPs)

Key Outputs

- Control measures
- Sustainment governance structure
- NIH SBPO Dashboard

STANDARD OPERATING PROCEDURES

During the discovery process, the NIH Small Business Office determined there was much variation in the way the office, its BPs, and the HBCUs were executing their processes to obtain contracts. To mitigate any potential negative consequences, the SBO created Standard Operating Procedures (SOPs) that document all PEI processes in order to reduce variation and increase measurable outcomes.

Each SOP provides a step-by-step guide for each organization involved in the PEI Initiative, which will undoubtedly increase each HBCU's ability to win contracts.

PEI SBPO Internal Business Processes

It is the SBPO's mission to enable HBCUs to obtain contracts. The PEI Initiative describes how business partners and the HBCUs can work together to obtain contracts through adhering to the program's guidelines and standards.

Initially, the SBPO will work with the HBCUs and partners to bring them into the program, which is estimated to take approximately two months. Applications for acceptance into the program will occur each October.

Once accepted into the program occurs, the SBPO will conduct orientation and curriculum training at each HBCU.

Within two months, the SBPO will work with the business partners and HBCUs to create teaming relationships that will assist the HBCUs in securing contracts.

The SBPO will then work with the BPs and the HBCUs to become strong teaming partners and to help them increase their understanding of the procurement process in order to win contracts.

What gets measured, gets done, and so the SBPO will assist the BPs and HBCUs in establishing metrics as well as governance measures to ensure that the BP/HBCU teams respond and win government contracts.

As part of the governance approach, the SBPO will work with the teaming partners to evaluate their win percentage each year and look for opportunities to improve.

PEI Procurement Ready HBCU Process

The NIH Small Business Office realizes there are some institutions that are not quite ready to pursue government contracts and some that are. To increase potential for success, the PEI Initiative will recruit participation from HBCUs that are deemed procurement ready.

To be eligible for participation, HBCUs must have expertise in one or more of the following areas:

- Biomedical Research and Development
- Information Technology
- Business & Professional Support Services
- Public Health Outreach, Communications and Research
- Laboratory services/products
- Construction Services

Additionally, past performance as either a prime or a subcontractor on a Federal contract within the past five years must be demonstrated.

During the selection process, interested HBCUs must submit a capability statement, complete an application, as well as provide evidence that the institution's senior administration is committed to pursuing Federal contracts. Once accepted and an agreement is made to adhere to the program requirements, the SBPO will extend a one-year acceptance agreement.

Accepted HBCUs will participate in orientation and PEI curriculum training in order to understand the steps required to obtain contracts and the infrastructure needed to sustain a contracting program.

The PEI Initiative is built around winning through partnering; therefore each HBCU will be required to select a business partner within one month of being accepted into the program. A database created specifically for this program will contain information on eligible businesses approved to collaborate with and mentor the selected HBCUs.

The HBCU and the BP they select will be trained in best practices for business development strategies, including the presentation of capability briefings to procurement officers at NIH institutes and centers. Together they will participate in contracting workshops and will meet at least twice monthly to execute a strategy for identifying and responding to solicitations. In order to maintain governance and measure progress, the SBPO will capture data from the HBCU/BP teams through monthly and quarterly reports, which will be submitted via the PEI database. Information gleaned from those reports will be used by the SBPO to determine strengths and weaknesses and seek out opportunities for improvement.

The PEI Technical Assistance Center

In addition to the collaboration between the HBCUs and their respective BPs, the SBPO will develop and implement an organic NIH PEI Technical Assistance Center (TAC). This will be a comprehensive ecosystem providing professional guidance with all aspects of the acquisition life cycle that will assist HBCUs in competing for and managing acquisition opportunities with the NIH. The PEI TAC will comprise an innovative support team of experienced government acquisition specialists who will provide services and share best practices thus enabling HBCUs to see first-hand and emulate what it takes to pursue and administer contracts. The PEI TAC will leverage the training curriculum and materials developed during the PEI Pilot program and provide the tools and metrics needed to support the sustainable growth of new and existing contracting opportunities for HBCUs.

PEI Business Partner HBCU Process

Businesses with past performance in Federal contracting are an important component to the success of the PEI Initiative. They bring a vast breadth of experience in the acquisition life cycle. The PEI Initiative will use a mentor-protégé training model to bring them and the HBCUs together to become a winning team.

Similar to the HBCU, s companies interested in participating in the program must apply and agree to the program requirements

To be eligible for participation, businesses must have expertise in one or more of the following areas:

- Biomedical Research and Development
- Information Technology
- Business & Professional Support Services
- Public Health Outreach, Communications and Research
- Laboratory services/products
- Construction Services

In order to ensure the best chance of obtaining contracts, the BP must understand the procurement ins and outs, as well as the NIH SBPO, does. Consequently, they will be required to demonstrate five or more years past performance as a prime or a subcontractor with the Federal Government, or have other relevant contracting experience.

The businesses are expected to research the HBCUs in advance and identify potential partner during the application process. They will also be required to identify actual contract opportunities at the time the application is submitted.

Once selected to team with an HBCU, the BP will lead in the creation of a joint capability statement and will establish a win strategy with the HBCU. Teams must meet at least twice a month, which is reported to the SBPO. This is in order to maintain progress toward a contract award.

The HBCU/BP team then identifies opportunities that fit their win strategy from the PEI database. The Team will form a response, prepare a proposal, and submit it to the procuring organization and record the activity in the PEI database.

When the team receives the notification of a win/no win, they must submit that status into the PEI database. The team will also request a post-ward debriefing, regardless of the win/no-win status, and submit the information to the PEI database.

Each PEI participant will conduct a year-end evaluation of the program, to include strengths, weaknesses, opportunities for improvement, and benefits received from the program. This information will be used by the SBPO to improve the PEI Initiative and increase percent wins.

CONCLUSION

As stated, every endeavor begins with a single step that requires a whole team seeing, feeling, thinking, and being together to make it happen. The aim here is to harness the talents, commitment, and enthusiasm of the SBO team, its partners, and the schools, to bring minority-serving institutions further into the success loop that is the NIH.

APPENDICES

APPENDIX A

TECHNICAL APPROACH: DUE DILIGENCE

GOAL SETTING

The NIH SBO performed a comprehensive analysis of its customer base and their needs, as well as of their own in-house processes to determine what goals and initiatives must be set to meet their mission and achieve their vision.

The SBPO employed a proven Lean/Six Sigma method for defining those goals that would, when achieved, delight those whom the organization serves as well as their partners, management, and stakeholders. This method to perform due diligence was comprised of four steps:

1. **Voice of the Customer** analysis: discover what the HBCUs' and Business Partners' goals and challenges are.
2. **Voice of the Process** Analysis: through value stream mapping, discover and understand the current processes being used by the SBPO to achieve its mission.
3. **Benefit and Effort** Analysis: Identify Initiatives for Improvement that, when implemented, will bring the SBPO to its goals
4. **Critical to Quality** (CTQ): metrics to be used to measure success

Voice of the Customer Analysis

From the data gathered by the on-site visits and interviews, the SBPO Strategic Planning Team performed the analysis to determine opportunities for improvement at the College and Partner level. The Team performed an analysis to identify those opportunities that would drive initiatives for improvement and also strategic goals that would, when achieved, delight its customers.

A copy of the analysis performed at the colleges and with the business partners is included hereafter in Appendix B.

Voice of the Process

In order to understand how the SBPO was working on a daily basis to achieve its mission, the Strategic Planning Team performed an analysis of current processes through the use of Value Stream Mapping (VSM), a tool used extensively by Transformation Architects to understand opportunities for improvement in an organization. The VSM presents a graphic depiction of who is doing what, when, and where and provides clarity into those things that are causing poor quality and delays.

Benefit and Efforts Analysis

From the VSM, The Team was able to see what areas inside their operations were in need of improvement and identify opportunities or initiatives to be undertaken to become more efficient and effective. These opportunities provide a grassroots view of what goals should be set for the organization.

The opportunities identified with the VSM were numbered and plotted in terms of benefit to the organization and effort for implementation, thus identifying those initiatives that will return the most to the organization. The Team was able to identify the best goals and initiatives to be included in the strategic Plan.

A comprehensive list is reflected in an excel worksheet that is available from the SBPO.

Critical to Quality (CTQ) Performance Metrics

Based on the analysis of the VoC and VoP, the Team identified critical to quality metrics that will quantify the accomplishment of each initiative. Those metrics are listed with each goal.

National Institutes of Health
Office of Acquisition and Logistics
Management Historically Black Colleges and
Universities Path to Excellence and Innovation
Gap Analysis Report

May 2019

EXECUTIVE SUMMARY

The National Institutes of Health (NIH)'s Small Business Office created the Path to Excellence and Innovation (PEI) program to address a critical disparity within academic research: the lack of contracts within Historically Black Colleges and Universities (HBCU). The PEI Initiative was formed to address the critical gaps within contracts and the core issues preventing HBCUs from attaining competitive research awards. The NIH commissioned a survey project to interview current pilot institutional participants on their personal and institutional experiences and knowledge of the PEI Initiative.

HBCU Best Practices & Barriers to Success

The Supreme Solutions, Inc. Team (SSI) has completed the assessment of the pilot HBCUs in the PEI Initiative to understand the practices, processes, and infrastructure that may have prevented successful competition for funded contracts. The NIH PEI Initiative was developed on the premise of the Executive Order on Historically Black Colleges and Universities that creates an opportunity for NIH to interact and engage with HBCUs and increase the diversity in biomedical research.

SSI's reports will provide a tool to guide NIH's program officers' engagement of their stakeholders in the HBCU community.

The report is sectioned into:

- Background – An overview of the project and why the survey was conducted
- Limitations – Barriers to success and how they were resolved
- Methodology – Survey methodology and reasoning behind survey structure
- Results – The perception of the program; positive and perceived room for improvement
- Recommendations – Respondent feedback for NEI PEI Initiative consideration

BACKGROUND

The Presidential Executive Order #13779 – The White House Initiative to Promote Excellence and Innovation at Historically Black Colleges and Universities established a renewed focus on minority-serving institutions for the federal government. Reaffirming the nation's commitment to HBCUs is a significant priority of the current administration. The current Executive Order charges federal agencies with the following.

1. Establish how the agency intends to increase the capacity of HBCUs to compete effectively for grants, contracts, or cooperative agreements.
2. Identify federal programs and initiatives where HBCUs are not well represented and improve HBCUs' participation in those programs and initiatives; and
3. Encourage the public sector, private sector, and community involvement in improving the overall capacity of HBCUs.

The Path to Excellence and Innovation (PEI) Program is a comprehensive program to expand the NIH's Small Business Program in the Office of Acquisition and Logistics Management (OALM). The PEI Initiative is intended to explore new ways for HBCUs to effectively compete for grants, contracts, and cooperative agreements within the NIH. The program is designed to create an avenue by which HBCUs can more effectively compete with larger, more resource-rich universities and colleges and ensure equitable representation in federal contracts, awards, and cooperative agreements.

The main thrust of the PEI Initiative is designed to ensure HBCU participation in government acquisitions and grants processes by building capacity through partnerships with businesses and providing technical assistance and training that equips the HBCU Teams to successfully compete for federal procurement." The PEI Initiative has provided training and technical assistance to HBCUs applying for NIH contracts and grants to increase participation and capacity. Currently, there are six pilot schools, and each has chosen one or more Minority Business Enterprise (MBE) teaming partners to support their efforts throughout the program. The NIH PEI Initiative has six original pilot schools:

- Hampton University (Hampton, VA)
- Howard University (Washington, DC)
- Jackson State University (Jackson, MS)
- Meharry Medical College (Nashville, TN)
- Morehouse School of Medicine (Atlanta, GA), and
- The University of the Virgin Islands (St. Thomas, USVI)

LIMITATIONS

Interviews were successfully completed at four of the pilot institutions; however, interviews could not be scheduled at Hampton University or Morehouse School of Medicine within the time specified to complete the report. The respondents' answers to the interview questions were reasonably consistent. There is no evidence to suggest or not suggest that the two non-responding schools' answers would have been significantly different. Therefore, the results

and recommendations within this report are limited to and based upon the four pilot institutions.

The perception of the purpose of the interview added another limitation. The interview focus was to evaluate the impact of the PEI Initiative against the mandates of the Executive Order on HBCUs. The purpose of the survey had to be reiterated on multiple occasions to counter the perceived impression by the participant that the survey was intended to evaluate their institutions rather than the NIH PEI Initiative. The assurance was given by the interviewer on the purpose of the interview allowed for honest quality feedback.

METHODOLOGY

The design of the interview questions was based upon the direct compliance of the PEI Initiative alignment to the Executive Order. An initial discussion with the NIH PEI staff yielded a high-level framework for the analysis. The evaluator used the PEI's framework to form the initial questions. The questions were compared to the EO requirements and revised accordingly. Four broad categories of Relationship Building; Capacity Building, Representation; and Partnerships were created. Survey approval was granted after questions and categories were reviewed by NEI PEI staff.

The primary focus of the PEI Initiative is capacity building via technical assistance. The assumption is that the topics of the technical assistance will vary depending upon the role of the individual at the institution. Consequently, the targeted respondents at each school were chosen based upon their institutional roles of university leadership, administration, relevant faculty researchers, and research administration/sponsored programs staff.

All interviews were conducted in-person or via live teleconference. Interview questions were provided to participants prior to the interview and followed in a similar order for each interview. The occasional follow-up was needed to fully understand the context of each question.

RESULTS

In total, there were twenty-one (21) respondents to the interview questions. Of the respondents, 72% were members of the university administration, and 28% were faculty researchers. The interviews were conducted between February 22, 2019 and May 6, 2019.

In the sections that follow are the summaries of the respondents' answers to the interview questions.

Interview Responses to Relationship Building

Respondents generally indicated that there was a substantial disconnect between the NIH and researchers. They generally felt that NIH representatives were not concerned with cultivating relationships and that it was often difficult or confusing to find the correct contact. They also felt that NIH program representative responses were often slow or non-existent and did not fully address their questions.

In contrast to the overall sentiment regarding relationship building, university leadership generally indicated a positive outlook in developing relationships with NIH representatives. They often cited an interest in attending conferences or events and visiting NIH offices to meet with program officers. Administrators from at least two universities touted the visitations of NIH officials to their respective campuses. One institution additionally spoke generally of a pending formal relationship with NIH that seemed to suggest the introduction of new opportunities specifically for the campus. Despite the administrators' sentiments, faculty researchers were generally pessimistic about university administrators' ability to deliver solid, productive relationships. There seemed to be a disconnect in communication between researchers and administrators in being aware of structured relationship-building activities.

Respondents were generally not aware of productive ways to develop solid relationships with NIH program representatives. Most indicated that there was no formal plan in place or that they were unsure of how to properly develop these relationships. A lack of interest on the part

of the NIH was cited as a primary driver. An outlier, one respondent indicated that they had developed

such positive rapport with the NIH that they often receive notice of upcoming awards proactively.

When asked about specific steps taken to develop relationships with the NIH, most respondents indicated that it was the responsibility of the Vice President of Research (or similar role) to begin developing relationships. Most felt that beginning with high-level relationships would create more structure and create pathways for researchers to develop more strategic relationships with program representatives. There was also an indication that most respondents were not able to

properly identify applicable program representatives.

It should be noted that a couple of the administrator respondents made it a point to share their appreciation of the periodic calls with the NIH PEI Initiative staff. They indicated that it gave them the opportunity to stay connected and keep a focus on the efforts of the PEI Initiative.

Interview Responses to Capacity Building

Most respondents identified that their respective universities were not only able but also willing and ready to pursue NIH contract awards. Most felt that their universities had supportive leadership who communicated a commitment to pursue NIH contract awards. Typically, and without hesitation, the respondents indicated that they were ready with the technical/science knowledge and capability. Some respondents expanded upon some of the research work in which they are engaged. Both administrators and faculty alike spoke to their drive to increase the research portfolio of the university. While indicating their readiness, the respondents, both administrators, and researchers reported something very differently regarding the university's ability to pursue NIH contract awards. They cited a lack of some essential resources that would enable them to succeed. The majority of respondents indicated that there were additional business needs that would enable their success, such as either filling a vacancy or increasing the personnel in the sponsored programs office.

Respondents also indicated a need for more grants and contracts administration support from staff with proposal budgeting experience. There was a general sense that the provision of additional support services would reduce the time spent on administrative duties, which would allow for more time on their respective projects. As well, almost all respondents indicated that there was a need for additional release time to allow researchers to pursue their research interests. Most researchers indicated that they are overburdened with teaching and advising obligations, which creates substantial barriers to success in research. It should be noted that one of the four institutions had a slightly different take on their capacity to pursue

NIH contract awards. The administrators at the one institution felt that their infrastructure to support contract awards pursuit is well established. Contrastingly, the faculty researcher's perspective was the opposite in that the perception was that the university was lacking in infrastructure/capacity and that faculty teaching loads were too heavy.

Administration and researchers agreed that there are metrics in place to identify expectations with contract awards. Most respondents indicated that research publications, grants, contracts and diversity in contract awards were critical components of a successful research portfolio. The general consensus was that there is a desire to move from grants to contracts and that the diversity in overall research contract awards was a high priority.

Resource allocation was also a priority for faculty and administration. Many respondents indicated that external resources would be incredibly helpful with everything from grant writing and review to assist with completing research projects. Respondents identified available resources such as peers at other majority universities from local and regional consortia and minority business enterprise teaming partners. Other external resources that are needed were identified as NIH-driven grant writing workshops, grant writing assistance, and review, and more cross-collaboration and knowledge-sharing opportunities.

The general consensus among those surveyed was that they are ready and prepared but lack the general infrastructure that would enable substantial proposals and submissions. Access to additional resources would greatly enhance the competitiveness, quality and efficacy of proposals.

Interview Responses to Representation

When asked about representation within the NIH, many of the faculty researcher respondents were unaware of the PEI Initiative or how it could benefit their institution. Many respondents were unaware of the program's purpose or how it could provide a solid foundation on which to build their relationships with the NIH.

Researchers indicated a general interest in being part of NIH strategic planning and initiatives. The administration also indicated that they would like to know more about NIH priorities and strategic objectives so they can plan ways to participate in opportunities more effectively. The general consensus was that most participants are unaware of NIH priorities and how they would benefit and contribute to research success.

Generally, both administrators and faculty researchers expressed either little or no knowledge of how to participate in NIH strategic planning and related activities. While respondents seemed to show interest in participating, they seemed to be aware of the possible only after asked as a part of the interview.

Interview Responses to Partnerships

While most respondents indicated that they had not developed any external partnerships, there were a few examples of success. One institution indicated that they had identified a potential partner that has already identified contract awards opportunities and created solutions to identify additional opportunities. Another institution is actively seeking out business partners to create new avenues for community and regional growth. The results were mixed somewhat in half when respondents were asked about their relationships with their MBE teaming partners with half of the respondents not being aware that they have a teaming partner and/or who their partner is. Administrator respondents generally had knowledge that they have a partner, but had difficulty identifying their contact. Researchers were generally unaware of their MBE partner.

For two of the institutions, the MBE partner has been a contributing factor to their success. The University of the Virgin Islands stated that their MBE was able to help them craft a compelling Capabilities Statement, which is frequently used to solicit new partners and emphasize the caliber of their work. The institution indicated that they had great success in developing this relationship, which provided them with valuable resources about identifying and writing proposals. The second institution was very pleased with its MBE partner, mainly for providing the institution with technical assistance in understanding and preparing for contracts vs. grants.

In both cases, while no new contracts have been awarded, the institutions found the educational aspects of the relationship worthwhile.

RECOMMENDATIONS

Based on the feedback and answers from the respondents in the interviews, the authors of this report provide the following recommendations.

1. Examine ways of creating a structured process that connects and encourages technical information exchange between HBCU faculty researchers and NIH program representatives.
2. Design a technical assistance curriculum on the fundamentals of understanding the organizational structure of NIH institutes and centers and creating, building, and maintaining relationships with relevant NIH representatives.
3. Continue technical assistance workshops and training, but with an expanded focus upon curriculum tracks designed to accommodate the specific institutional roles of participants, such as an administrator track to address issues related to building an infrastructure to manage contracts, etc. and a researcher track to address relationship building, etc., (see recommendation #2).
4. Examine options in affecting changes in NIH policy and practice that actively increase HBCU participation in NIH strategic planning, research information exchanges, peer review panels, and other activities that would provide insight into the NIH research priorities, needs, plans, etc. Such participation by HBCUs would enable them to identify and form new relationships with program representatives, understand the NIH research direction, stay abreast, and be informed of research opportunities, and prepare more competitive proposal submissions.
5. Review the HBCU/MBE partnerships in more detail to examine those relationships that worked and those that did not. Such a review can identify a model of best practice that can be duplicated among all PEI participants.
6. Facilitate collaborative research teams of HBCUs with each other and with additional MBEs to pursue targeted NIH opportunities.

The interview respondents made it overwhelmingly clear that the lack of institutional capacity was a major contributor to the challenges in pursuing NIH contract awards successfully. While this is a significant deficiency, the authors of this report were not able to ascertain from the respondents any specific actions that the PEI Initiative could undertake, short of providing direct operating funds to shore up the institutions' infrastructure. Consequently, with the exception of the recommendation to enhance future technical assistance and training, the authors of this report offer no further recommendations.

CONCLUSIONS

The NIH PEI Initiative could enable significant success in developing deeper relationships with participant schools. While a great many faculty and staff felt that the NIH was not able to adequately prepare them for success in research with the federal government, there was a general sense of optimism and opportunity among both administration and faculty. The lack of quality relationships between institutions and the NIH was the most critical response of all survey questions, which could be remedied through intentional, genuine engagement.

Relationships must be cultivated through more than simple email outreach – there needs to be a sincere effort to include participant schools from strategic planning through post-award research.