University of the Virgin Islands

St. Thomas, Virgin Islands

Presented to

Dr. David Hall, President

Summative Evaluation Report

Title III/Institutional Aid Programs Part F

SAFRA

2018 – 2020

Submitted by:

Dr. Haywood L. Strickland, President

Associates for Institutional Development, Inc.

P.O. Box 569

Red Oak, GA 30272

University of the Virgin Islands

St. Thomas, Virgin Islands

Presented to

Dr. David Hall, President

Summative Evaluation Report

Title III/Institutional Aid Programs Part F

SAFRA

2018 – 2020

Submitted by:

Dr. Haywood L. Strickland, President

Associates for Institutional Development, Inc.

P.O. Box 569

Red Oak, GA 30272

University of the Virgin Islands

Summative Evaluation Report

Title III/Institutional Aid Programs Part F

SAFRA

2018 – 2020

TABLE OF CONTENTS

Page

INTRODUCTION

The University of the Virgin Islands was awarded a Title III grant under the Department of Education's SAFRA Program. The award covers a five-year period (2015 – 2020). The University determined to contract to have its grant reviewed by a team of outside Title III experts. Associates for Institutional Development, Inc., (Red Oak, GA and Marshall, TX) was selected to conduct the external evaluation. AID, Inc. conducted the summative external evaluation for the grant on November 18 -20, 2019.

The evaluators of record for this visit were: Dr. Haywood L. Strickland, President, AID, Inc.; Dr. Gloria Pryor James, Vice President, AID, Inc., and Mrs. Paula Tendai Johnson, Senior Program Associate. This report reflects the findings of the visit.

The Agreement

AID, Inc. agrees to perform the following services:

1. Review the University of the Virgin Islands Comprehensive Development Plan for the UVI 2015-20 Title III Student Aid and Fiscal Responsibility Act (SAFRA) grant program, and the applications for the 2015-16, 2016-17, 2017-18, 2018-19 and 2019-20 grant periods. Become familiar with project goals, objectives and strategies.

2. Review all changes in scope or objectives submitted to and/or approved by the US Department of Education.

3. Review the Annual Performance Reports for fiscal years 2016 through 2018, along with quarterly project progress reports for fiscal year 2019. Also review project inventory records, project budgets and expenditures, contracts issued pursuant to the grant program, program policies and procedures, and any other relevant documents necessary for AID to gain an understanding of the operation of the SAFRA grant program at the University of the Virgin Islands.

4. Conduct a site visit on or about November 18-20, 2019 in order to:
   a. Interview current institutional administrators, Activity Directors, and project staff regarding progress on individual projects, realization of objectives and impediments to success; and
   b. Assess the effectiveness of university internal controls for the grant management.

5. Activities to be reviewed will include:
   a. UVI Learning Space Enhancement
   b. Integrating Learning Resources for Sustainability (cancelled September 2018)
   c. Expanding Opportunities for STEM Majors on the AAS Campus

      d. Introducing a Data Science Curriculum
      e. Mobile Entrepreneurship Lab

6. Conduct exit interviews with President, Provost, program administrator, and other relevant staff to provide an informal assessment and findings.

7. Utilizing a program evaluation model accepted by the U.S. Department of Education, apply appropriate methodologies to the data gathered in order to analyze the effectiveness of the 2015-20 UVI SAFRA grant program administration and project implementation.

8. Within twenty (20) working days of the site visit, prepare a draft report for review by UVI program staff, which synthesizes all information reviewed, generated and analyzed to provide an assessment of the accomplishments of UVI SAFRA.

9. Within fifteen (15) working days of receipt of feedback from UVI, prepare a final initial evaluation report. Ten (10) bound copies, along with two (2) electronic formats (Microsoft Word and Adobe Acrobat) of the report, shall be submitted as final deliverables.

The following activities will be evaluated:

UVI Learning Space Enhancement – Extending the improvement of classroom space that commenced in the 2010 – 15 SAFRA grant cycle, this project is intended to increase the number of technology-based classrooms at the University from 87 (92% of overall classrooms) to 92 (97% of classrooms) by the end of the grant cycle in 2020.

Expanding Opportunities for STEM Majors on the Albert A. Sheen Campus – This project is designed to expand the number of science majors on the Albert A. Sheen campus on St. Croix, enabling science majors residing on that island to complete their degrees without having to transfer to the St. Thomas campus.

Introducing a Data Science Curriculum – This activity provides partial support to develop a Data Science program at the university of the Virgin Islands (UVI). This proposed Data Science project is consistent with the University's Pathways to Greatness Strategic Plan focus area "Academic Quality and Excellence," which calls for the continued development and enhancement of academic programs and research initiatives and identifying the appropriate faculty and staff with the expertise needed to support these initiatives. This project is supported by reassigned funds.

Mobile Entrepreneurship Lab – Supported by reassigned funds, this project is intended to establish new Mobile Entrepreneurship Lab (MEL) on both campuses of the University of the Virgin Islands (UVI). This request is intended to support the Management Information System (MIS) Department and the Entrepreneurship Program in the School of Business and is consistent with Section 323 (a) (4) of the Higher Education Act of 1965, which provides for academic instruction in disciplines in which Black Americans are underrepresented."

Program Administration

<u>**The Evaluation Process**</u>

Specific objectives of the evaluation are delineated below, and they reflect the guidelines established for the evaluation as follows:

1. Assess and evaluate the status of each of the University's HBCU activities in relation to its stated objectives, milestones and performance evaluation measures.

2. Assess the internal monitoring procedures used by the Title III Coordinator and the University to plan, manage and evaluate the total HBCU efforts.

3. Review activity budgets and expenditures and assess them in regards to grant compliance and activity projections.

4. Determine the impact to date of the activities on the University.

The evaluators met with Mr. Dayle Barry, Title III Coordinator, for the purpose of discussing the evaluation process, and for determining what on-site documents would be needed to carry out the evaluation efforts. The evaluators also held an entry conference with President Hall and Mr. Barry to give an overview of the site visit and hear comments from the president relative to his insight. The evaluators reviewed the documentation and other relevant program materials provided by the Title III Office. Structured interviews and conferences were conducted with the Title III activity directors and other key personnel. Files and records were examined, and program site visits were made in order to gather the information that formed the basis of this evaluation. Extensive materials and documentation were provided via e-mail prior to the team visit. Other documentation was provided on-site. An exit conference was held with the President and the Title III Coordinator. Mr. Jarelle Berkeley provided invaluable service to facilitate the evaluation.

The Evaluation Model

      In assessing the HBCU Program activities, the evaluators observed resources, procedures and outcomes of each activity. Where possible, the evaluation centered on whether the planned program goals were met in the form of observable outcomes achieved within the time frame and budget of the individual activity. In the very few cases where the observable outcomes fell short of the goals, the evaluators assessed both the procedures and the resources that were in the process of leading to the desired outcomes, as well as parts of the outcomes that had surfaced. In short, the evaluators attempted to determine the status of both the outcomes and the processes of each of the HBCU activities at the University of the Virgin Islands.

      Four basic questions guided the information gathering process and served as the evaluation model:

> ➢ What are the desired outcomes of the program and at what state of the development or accomplishment are they?
>
> ➢ What are the program procedures and activities and how are they expected to result in the desired observable outcomes?
>
> ➢ What resources (inputs) including the quantitative and qualitative characteristics of people, funding, equipment, supplies, training, initial plans and strategies are being used to form the procedures and activities that lead to the desired outcomes?
>
> ➢ To what extent have the stated objectives been accomplished?"

The University

      The University of the Virgin Islands (UVI) a "publicly funded, co-educational, liberal arts institution" was chartered, March 16, 1962, and the St. Thomas Campus opened in July 1963, and the St Croix Campus in 1964. In 2011, UVI expanded to St. John, VI with the opening of an academic center in Cruz Bay. The University has progressed from offering the associate degree to the baccalaureate, five (5) master's degree programs: Education, Business Administration Public Administration, Psychology and Mathematics for Secondary Teachers, an Education Specialist degree in School Psychology, and a Ph.D. program in Creative Leadership for Innovation and Change. In 1972, the University was awarded land-grant status. With the US Congress naming UVI an HBCU, it became the only Historically Black College or University outside of the Continental US. The University is headed by its fifth (5th) president, Dr. David Hall.

The Virgin Islands was struck by Hurricane Irma, a category 5 storm, on Wednesday, September 6, 2017, and then by Hurricane Maria, a category 5 storm on Tuesday, September 19, 2017. The University of the Virgin Islands suffered severe damage as a result of these unprecedented winds and rain. The University is still working to overcome the devastating effects of the hurricanes.

Overview

The overall day-to-day responsibility of Title III Administration is entrusted to the Title III Coordinator, Mr. Dayle Barry. It is the conclusion of the evaluators that the Title III HBCU activities have been well administered and well implemented.

The evaluation schedule is captured below:

Time	Project	Activity Director/ Administrator	Evaluator	Location
Monday, November 18, 2019				
9:00 AM-10:00 AM	Institutionalization of Goal 2A	J. Brewer	T. Johnson	ACC Conference Room 203
10:00 AM - 11:00 AM	Website Redesign	T. Thomas Williams	G. James	Public Relations Conference Room
11:00 AM-12:00 PM	Post Award Grant Capacity Enhancement	M. Jacobs/O. Elcock	G. James	ACC Conference Room 203
12:00 PM - 1:00 PM	LUNCH			
1:00 PM- 2:00 PM				
2:00 PM - 3:00 PM	Entrance Interview w/President	D. Hall	Evaluation Team	President's Office
3:00 PM - 4:00PM	Data Science	J. Luciano/M. McKayle	G. James	Public Relations Conference Room
4:00 PM-5:00 PM				
Tuesday, November 19, 2019				
9:00 AM-10:00 AM	Bachelor of Fine Arts	K. Engerman	T. Johnson	Provost Office Conference Room (AAS)
10:00 AM - 11:00 AM	Expanding Opportunities for STEM Majors	M. Peterson	T. Johnson	Provost Office Conference Room (AAS)
10:00 AM - 11:00 AM	Childhood Learning Laboratory	K. Brown/L. Thomas/S. George Tonge	G. James	ACC Conference Room 203
11:00 AM-12:00 PM	Mobile Entrepreneurship Lab	T. Lombardi/T. Faley	G. James	Public Relations Conference Room
11:00 AM-12:00 PM	Capacity for Greatness and Learning Space Upgrades	S. Harris	T. Johnson	St. Croix Library (AAS)
12:00 PM - 1:00 PM				
1:00 PM- 2:00 PM				
2:00 PM - 3:00 PM				
3:00 PM - 4:00PM				
4:00 PM-5:00 PM				
Wednesday, November 20, 2019				
9:00 AM-10:00 AM	Project Administration	D. Barry/J. Berkeley	H. Strickland	ACC Conference Room 203
10:00 AM - 11:00 AM				
11:00 AM-12:00 PM	Exit Interview w/President	D. Hall	Evaluation Team	ACC 3rd Floor Conference Room
12:00 PM - 1:00 PM				
1:00 PM- 2:00 PM				
2:00 PM - 3:00 PM				
3:00 PM - 4:00PM				
4:00 PM-5:00 PM				

LEARNING SPACE ENHANCEMENT

I. <u>Introduction</u>

Learning spaces that encourage faculty and students to collaborate are enhanced through the use of technology, thus creating learner-centered environments that are critical elements in student success. In 2011, with the shift to wireless technologies and a more collaborative teaching pedagogy, it became obvious that the classrooms and learning spaces at the University of the Virgin Islands did not meet the 21st Century needs of the students enrolled in classes or the faculty who teach them.

The university has embarked upon several projects focused on specific facilities to reveal what types of learning environments best meet students' needs by providing adequate resources and spaces for faculty instruction. Renovations to both campus libraries and the design and implementation of a new academic center on the island of St. John have focused learning spaces on technology, collaboration and flexibility. With the successful launch of these spaces, the gap between the renovated spaces and the non-renovated spaces is striking. The university would like to eliminate this gap by outfitting and renovating the remaining classrooms to accommodate 21st Century learning.

During the 2010-2015 Student Aid and Fiscal Recovery Act (SAFRA) grant cycle, thirty-two (32) rooms were upgraded. In most cases, the entire room was renovated, painted and new furniture and equipment added. In some cases, only technology and/or furniture were added. This included providing flexible furniture that can be configured in various ways depending on the type of class activity scheduled for that day. Various technologies, including computers, projectors and document cameras, that are centrally controlled by touch-panel system were installed. Finally, the rooms were aesthetically pleasing with bright vibrant colors on the walls and the furniture.

For the new five-year SAFRA grant cycle (2015-2020), the project has continued to upgrade rooms, ensuring all current classrooms have the furniture and technology needed for current and future teaching and learning styles. This initiative is two-fold; not only does it address improving learning environments but it also addresses faculty complaints about the lack of technology available in classroom spaces, as well as not having adequate/appropriate

furnishing to accommodate their teaching, which is one of their chief complaints across the campuses. During the grant cycle, computer labs will also be upgraded. These labs are heavily used by individual students and are sometimes scheduled for classes.

Enhancing learning spaces continues to be a very high priority for the university. At the conclusion of this 2015-2020 grant cycle, most learning spaces on the St. Thomas and St. Croix campuses will have been renovated, providing faculty and students with state-of-the-art technology and appropriate furniture to enhance the delivery of instruction. Improvements to the spaces will continue to have a positive impact on faculty instruction and student learning. Campus administrators are confident that they will continue to make progress with this Activity although some classrooms that were completed previously renovated were decimated by hurricanes during the 2017-2018 grant period.

II.   **Specific Objectives, Implementation Strategies and Accomplishments**

The following objectives and performance indicators guided the Activity for the 2018-2019 grant year:

Objective 1.0:   Increase the number of technology based classrooms at the University from 79 (or 85% of the overall classrooms) to 83 (or 88% of the overall classrooms) by September 30, 2019.

Performance Indicator: **1.1**   During year four, five (5) classrooms will be renovated to provide technology.

Status: Accomplished/Ongoing.

For FY 2019, four learning spaces were identified for enhancement, to include REC 143 and NRS-U105 on the Albert A. Sheen campus and CAB 303 and CAB 204 on the St. Thomas campus. Equipment was received and installed in rooms on both the St. Thomas and Albert A. Sheen campuses. On St. Thomas, CA 205, CA 303 and CA 305 were made 21st Century smart classrooms. On the Albert A. Sheen campus, REC 143, EVC 303, EVC 401, and EVC 305 were equipped with the same technology. There are now 86 technology-based rooms, or 91% of all classrooms.

During the previous grant year, 2017-18, the baseline and target percentage of technology rooms identified to be upgraded were changed after the passage of Hurricanes Irma and Maria through the USVI on September 6th and 19th, 2018. Eleven (11) rooms (representing 12% of the 94 rooms at the institution) that were previously upgraded and counted towards the overall target were damaged and rendered unusable.   Equipment used for videoconferencing, controlling room technology, document cameras and computers were all damaged. This all slowed the process that began earlier where during FY2016, Information and Technology Services (ITS) partnered with the College of Science and Math (CSM) on the upgrade of a classroom (CA307) on the St. Thomas campus. ITS provided the equipment for the room, while CSM provided the furniture and a promethean board. Equipment included a projector with dual whiteboards, one for projection and one for writing; a DVD player; a computer; a document camera; and a Crestron panel to control the operations of all. Furniture selected included separate chairs with casters and kidney shaped tables. This furniture was designed for easy movement into different configurations depending upon classroom needs.

Collaboration with the College of Science and Mathematics led to more rooms being upgraded. During the summer months of FY2017, three (3) computer labs on the St. Thomas campus were upgraded with furniture enabling the rooms to be used as classrooms. Computer labs and a Smart Room on St Croix were also established. Thus activity was well on the way to making all classrooms smart classrooms.

Having revised the objective to address the damages to classrooms left by the hurricanes. The new modified plan has achieved the objective and places the institution in position to get closer to its original goal of having all classrooms be smart rooms.

Rating: 4.0

> **Objective 2.0:**   Increase the number of technology based classrooms at the University from 77 (or 85% of the overall classrooms) to 92 (or 98% of the overall classrooms) by the end of the grant cycle (September 30, 2020).

> **Performance Indicator:**   **2.1**   During year four, five (5) classrooms will be

renovated to provide technology.

Status: In Process.

Quotes were obtained for equipment, furniture and supplies for REC 143 and NRS-U105 on the Albert A. Sheen campus and CAB 303 and CAB 204 on the St. Thomas campus. The science labs project was completed in 2019. Equipment was purchased for the rooms on both campuses including REC 143, EVC 303, EVC 401, EVC 305, CA 205 and CA.

Equipment was installed in rooms on both the St. Thomas and Albert A. Sheen campuses. On St. Thomas, CA205, CA303 and CA 305 were made 21st Century smart classrooms. On the Albert A. Sheen campus, REC 143, EVC 303, EVC 401, and EVC 305 were equipped with the same technology. There are now 86 technology rooms, or 91% of all classrooms. Thus the Activity and this objective is well on the way to accomplishing its intended outcome by September 2020.

Previously, during the summer months of FY 2017, three (3) computer labs on the St. Thomas campus were upgraded with furniture converting them to classrooms. Computer labs CA103, BA204E and L105 were equipped with hideaway tables. This allows the instructor to obtain full participation of the students without the distraction of computers. The remaining lab in L120, was made equipped with new furniture and available to students twenty-four (24) hours a day when school is in session. On St. Croix, C100 was made a full functioning smart classroom. However with hurricane damage to campus buildings, four (4) rooms that were previously flexible were also rendered unusable. The objective has been modified accordingly, and current efforts have ensured the objective has been achieved.

Rating: 4.0

Objective 3.0: Renovate and provide necessary furnishing to provide flexible learning spaces in at least 43 or 46% of the University classroom spaces by September 30, 2019. There were 37 thusly furnished at the start of the grant cycle.

Performance Indicator: **3.1**   During year four (4), five (5) classrooms will be

renovated to include furniture to accommodate different teaching/learning activities.

Status: Accomplished/Ongoing.

"Flexile/movable" furniture that allows for easy reconfiguration of rooms for different purposes by classes and groups were installed in the rooms on both campuses, CA 205, CA 303 and CA 305 and REC 143, EVC 303 and EVC 305 on the Albert A. Sheen campus. In EVC 401 on the AAS campus, where the room furniture is fixed in place, no new were ordered. There are now 48, or 51%, rooms with furniture that allow for quick turnaround to different uses.

In addition, furniture and related equipment, including fume hoods and safety showers were installed in the St. Thomas campus Science labs. SCI 109, SCI 111, SCI 201 and SCI 205 now meet today's safety standards for biology and chemistry teaching needs.

This objective formerly addressed student satisfaction with the upgraded rooms and technology. It has been changed to address the need for furniture and technology upgrades to accommodate current state-of the art teaching and learning techniques.

Rating: 4.0

Objective 4.0:   Renovate and provide necessary furnishing to provide flexible learning spaces in at least 46 or 49% of the University classroom spaces by the end of the grant cycle. There were 37 thusly furnished at the start of the grant cycle.

Performance Indicator: **4.1**   During year four (4), five (5) classrooms will be renovated to include furniture to accommodate different teaching/learning activities.

Status: In Process.

There were 48 learning spaces furnished at the start of the grant cycle; however, 11 of those spaces were placed offline after the hurricanes, which reduced the number of furnished learning spaces to 37. Furniture that allow for easy reconfiguration of rooms for different purposes by classes and groups were installed in the rooms on both campuses, CA 205, CA 303 and CA 305

and REC 143, EVC 303 and EVC 305 on the Albert A. Sheen campus. In EVC 401 on the AAS campus, where the room furniture is fixed in place, none was ordered. There are now 48, or 51%, rooms with furniture that allow for quick turnaround to different uses.

With emphasis upon modernizing the classrooms with current state-of-the-art technologies and configuring the classrooms to accommodate the technologies, as well as active teaching and learning processes, *it is recommended that the Activity Director works with institutional research to see if current evaluation surveys can include questions related to staff and student satisfaction with new/updated technologies and room/furniture.*

Rating: 4.0

Overall Rating: 4.0

III.   Resources (Fiscal and Personnel)

In 2018-2019, the Title III original allocation was $513,687.00 to the Activity. In 2018-2019, the Title III adjusted budget allocation to the Activity was $264,652.00. As of September 30, 2019, $758,967.00 or 97.5% of the allocation was expended.   Positions charged to Title III were:

Administrative Assistant   25% `   12 Months

Travel:

There were no Title III funds utilized to support travel for personnel during the 2018-2019 grant year.

IV.   Challenges to Programmatic Accomplishments

The primary challenge faced by the university on both islands continues to be the cleanup and rebuild of damaged facilities, classrooms and technologies resulting from the two Category 5 hurricanes that impacted the Territory on September 6 and September 19, 2017. The catastrophic destruction to the infrastructure of the Territory and that of the university has required a

reassessment and revision to objectives related to infrastructure upgrades and developments. The Activity was intended to enhance the institution's academic quality by providing classrooms with a more technology enhanced and diverse physical environment that facilitates and encourages innovative teaching and learning.

V.   Program Impact, Summary and Recommendations

Title III funding has provided the resources to update classrooms and technology in them. In most cases, the entire room was renovated, painted and new furniture and equipment added. In some cases, only technology and/or furniture were added. This included providing flexible furniture that can be configured in various ways depending on the type of class activity scheduled for that day. Various technologies, including computers, projectors and document cameras that are centrally controlled by touch-panel system were also installed.

By FY2018-2019, Ninety-one percent (91%) of the classrooms at the University now have technology. In addition, 48 or 51%, of classrooms have furniture that allow for reconfigurations to different uses. These spaces can be easily used for all class work, small group or individual study.

The addition of rooms with technology increases the number of spaces available for student individual and group work. With limited computer labs on the campuses, students are encouraged to use classrooms for group work after hours when computing is needed. In addition, scheduling woes have lessened with the availability of more smart rooms. Faculty prefer to host classes in these rooms. This latter issue results in the need for scheduling the use of the rooms.

Improvement of classrooms as well as technologies is consistent with the university's strategic plan and helps create a more inviting as well as functional learning environment. Both issues improve the image of the University of the Virgin Islands and presents the institution as an attractive state-of the art academic institution.

Recommendation:

The following recommendation is being offered to further enhance the implementation of the processes and programs that were supported by Title III during the 2018-2019 grant period. It is recommended that the Activity Director works with institutional research to see if the institution-wide Student Satisfaction Survey can include questions designed to assess student and faculty satisfaction with the technologies and renovated classrooms.

Documents Reviewed

2016-2017 Grant Application

2017-2018 Grant Application

2018-2019 Grant Application

Quarterly Reports

Annual Performance Report

Budgets

Person Interviewed

Sharlene Harris, Activity Director

**EXPANDING OPPORTUNITIES FOR SCIENCE AND
MATHEMATICS ON THE ALBERT A. SHEEN CAMPUS**

I.   <u>Introduction</u>

The project has been designed to increase science, technology, engineering and mathematics (STEM) offerings on the Albert A. Sheen (AAS) campus of the University of the Virgin Islands (UVI) with the long term goal of offering all STEM majors on the AAS campus and STEM courses for non-majors.

The short-term goal of this project is to strategically expand science and mathematics offerings on St. Croix, leveraging existing resources to the fullest degree possible and maximizing the benefit to students on both campuses while limiting costs for the university. This expansion will keep with the following core principles:

- All new offerings should be instituted according to a timetable that allows adequate time for assessment and review.

- New and expanded offerings on either campus must be chosen so as to positively impact enrollment, retention and persistence so that they will be sustainable after grant funding is no longer available.

- The University of the Virgin Islands is one university, not two. Changes instituted on AAS campus should benefit UVI as a whole

The Activity Director and other key university personnel will continually assess the impacts of the project and use the data to help formulate future plans. The university also has plans to launch a medical school, and the assumed opportunities afforded by that event, including a new/larger pool of part-time faculty, should also benefit this grant funded program/project. While additional full-time faculty will ultimately be needed, more course/major offerings will be phased in gradually with the use of part time faculty, however, one full-time faculty was hired to teach biology and chemistry during the 2017-18 academic year. This, coupled with the video-conferenced classes and hybrid classes (online with face-to-face labs) will enable the Sheen Campus to leverage existing institutional resources.

While complete STEM offerings on the AAS campus are desirable both for UVI and for St. Croix, current staffing, infrastructure and enrollment levels make a period of transition

necessary.

The new offerings proposed in this project will allow students majoring in chemistry, biology, marine biology and pure mathematics to complete their sophomore years on the AAS campus before transferring to St. Thomas. Access to the core courses of the environmental science, health science, and computational science minors (all developed through support from the Title III Part B and SAFRA grants) will be significantly enhanced as well.

II.   Specific Objectives, Implementation Strategies and Accomplishments

The following objectives and performance indicators guided the Activity for the 2016-2017 and 2017-2018 and 2018-19 grant years:

Objective 1.0*:*   Students matriculating in fall 2016 will be able to complete the major in applied mathematics, the elementary education specializations in mathematics and natural science, and the mathematics minor on the AAS campus, by spring 2020, as the necessary courses will be offered.

Performance Indicators: **1.1**   1 course added by spring 2016.

1.2   4 courses added by fall 2016.

1.3   5 courses added by spring 2017.

1. 4   Additional videoconference and hybrid courses added by spring 2020.

Status: In Process.

Objective 1.0 has four performance indicators, one of which is long term.   However, the project is on track with regard to the addition of courses on the AAS campus. All courses offered in fall 2016 and fall 2017 were offered in fall 2018 and the schedule for spring 2019 offered all classes that were offered in spring 2017 and 2018.

Of the added courses, BIO 223, BIO 245, CHE 253, and CHE 254, are videoconferences. Investigation on how best to expand offerings to reach the target of 6 videoconferences or hybrid courses has yet to be completed but is underway.

Alternate lab facilities and activities have been implemented, and locked storage is now in place. Repairs to the Research and Technology Park building are underway. A recap of the progress made for this objective since 2016-17 includes the following:

The project was on track with regard to the addition of courses on the AAS campus. For the fall 2017 semester, the following classes were offered, as they were in fall 2016: BIO 245, CHE 253 and 253L, MAT 341, MAT 397 and PHY 242. These additions permitted completion of the applied mathematics major, the math minor and the math and natural science specializations in elementary education, as well as allowing biology, marine biology, chemistry and mathematics majors to complete their sophomore level courses on the AAS campus.

As a result of the two hurricanes, none of the courses are video conferenced (three were, but had to change), but several have become hybrid, and this sudden need to create other options has spurred ideas on how to continue to expand offerings. In this instance the staff and faculty are to be commended for their forward thinking in that after the first hurricane that struck St. Thomas more severely, faculty and staff at AAS took precaution to wrap and shelter equipment that had been purchased for the project. Thus, the more expensive lab equipment was able to be salvaged, even after the devastation of the second storm, which impacted St. Croix much more than it did St. Thomas.

Given the damage to RTPark, the facility housing the classrooms and labs for the project, research were delayed as was the search for a physics faculty member to replace the former faculty. A part time faculty/videoconference and support strategy was put in place to enable the continuation of courses and services to students. The program was placed somewhat in limbo as staff awaited information regarding the assessment of damages to spaces on both campuses to determine the availability of classrooms and labs. During the onsite interview the Activity Director discussed and considered that while additional full-time faculty will ultimately be needed, more course/major offerings could be phased in gradually with the use of part-time faculty. This, coupled with the video-conferenced classes and hybrid classes (online with face-to-face labs) provide opportunity to leverage existing resources.

Rating: 4.0

Objective 2.0:   Starting in fall 2016, biology, marine biology, chemistry, and pure mathematics majors will be able to complete the sophomore level courses on the AAS campus as specified in the paradigms for those majors, as a result of the addition of 10 courses.

Performance Indicators: **2.1**   BIO 245, CHE 253, MAT 341, PHY 242, and MAT 397 will be added to the fall schedule, while BIO 223, CHE 254, MAT 342, MAT 346, MAT 398, and PHY 241 will appear on the spring schedule.

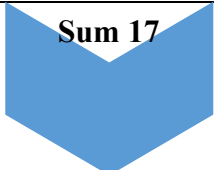**2.2**   Enrollment numbers for the courses.

Status: Accomplished.

All planned courses were added on schedule and have been offered each academic year through 2018- 2019. The relevant additions are summarized in the following table:

Semester	Courses Proposed	Courses Added
Fall 2016	BIO 245 CHE 253 PHY 242 MAT 341 MAT 397	BIO 245 CHE 253 PHY 242 MAT 341 MAT 397
Spring 2017	BIO 223 CHE 254 PHY 341 MAT 342 MAT 346 MAT 398	BIO 223 CHE 254 PHY 341 MAT 342 MAT 346 MAT 398

The originally planned implementation schedule continues to guide actions and activity for the project. Although a bit behind in some areas, it is the lens by which the Activity can gauge both progress and objective attainment.

Implementation Timeline

Fall 2015	• Purchase equipment for PHY241 and identify an appropriate part-time instructor for the spring. • Publicize new offering on the St. Croix campus and begin recruitment of students • Advertise for new math/physics faculty • Purchase audiovisual equipment for labs and set of laptops for use by multiple courses
Spring 2016	• Offer PHY241, to be repeated each spring. • Organize and purchase equipment for new fall offerings in physics, chemistry, biology and math. • Complete the hiring process for new physics faculty member. • Identify part time biology and chemistry faculty to fit staffing • Identify courses and faculty to work over summer 16 to adapt existing course for hybrid modality and/or videoconferencing.
Fall 2016	• Offer PHY242, BIO245, CHE253, MAT341 and MAT397 on AAS, to be repeated each fall. • Advertise for chemistry and biology faculty. • Organize and purchase equipment for new spring offerings in physics and math.
Spring 2017	• Offer BIO 223, CHE 254, PHY341, MAT342, MAT346 and MAT398, to be repeated each spring. • Complete final new faculty hires. • Assess program sustainability. Explore new external sources of funding
Sum 17	• First full year with complete expanded offerings. Assess and modify program as needed. • Identify areas for further growth and improvement, with particular focus on collaboration with St. Thomas faculty.
Fall 17	• Ensure assessment in place for all courses. • Identify areas for further growth and improvement, with particular focus on collaboration with St. Thomas faculty. • Identify grants to sustain growth and apply.
Sum 18	• Ensure assessment in place for all courses. • Identify areas for further growth and improvement, with particular focus on collaboration with St. Thomas faculty. • Identify grants to sustain growth and apply.

BIO 245, CHE 253 and 253L, MAT 341, MAT 397, and PHY 242 were scheduled for fall 2017; laptops were purchased; purchases of audiovisual equipment and organic chemistry supplies

were made; a full time physics faculty member was hired but did not remain. Several of the courses proposed for expansion saw growth in enrollment in the previous five years which indicated the need for either additional sections/labs or over-enrollment of existing sections on the island of St. Thomas. The courses were natural candidates to be offered at the AAS campus; not only would this benefit students wishing or needing to remain on St. Croix, but it would also help to relieve pressure on resources on St. Thomas. In particular, MAT 241-242, PHY241, BIO 245 and 223 and CHE 253 all included overenrolled sections. Almost all of the other courses targeted for expansion were fully enrolled and lacked room for easy growth on St. Thomas. Additional resources would be required on either campus.

For the fall 2017 semester the following classes were offered, as they were in fall 2016: BIO 245, CHE 253 and 253L, MAT 341, MAT 397, and PHY 242. These additions permit completion of the applied mathematics major, the math minor, and the math and natural science specializations in elementary education, as well as allowing biology, marine biology, chemistry, and mathematics majors to complete their sophomore level courses on the AAS campus. BIO 223, BIO 245, CHE 253, and CHE 254 are now video conferences, and the biologists are seeing advantages to videoconferencing junior and senior seminars. While the courses themselves are not yet offered, faculty on STX are joining the class on STT by videoconference to work out any potential difficulties. Unfortunately, no updated data of student course enrollment was provided during the 2019 review nor were data included in the fourth quarter or end of year reports provided to the Title III office.

Currently, repairs to the Research and Technology Park (RTP) building are nearing completion with CSM hopefully returning in December 2019 or January 2020.

Rating: **4.0**

> **Objective 3:0:** The persistence of STEM majors on the AAS campus will improve from 55% (fall 2015 persistence rate) to 70% by spring 2020.

> **Performance Indicator:** **3.1** Number of students who complete their sophomore year and register for the following year.

Status: Accomplished/Ongoing.

The project was in its initial stages in the autumn of 2016, when the most recent data for the objective was available. The initial data appeared to demonstrate that the objective could easily be achieved and exceeded.

Persistence After Sophomore Year

	AU 2015	AU 2016
Persistence	55%	77%

While the targeted percentage was exceeded in fall 2016 (77%), persistence declined in Fall 2017 (63%), although it was still higher than the baseline. Some of this may have been, in part, a result of Hurricane Maria. The persistence of STEM majors on the AAS campus who *began fall 2017* as *sophomores* and persisted are as follows:

- *Spring 2018* (registered spring 2018): 86%

- *Fall 2018* (registered fall 2018): 82%

For the current year, STEM Sophomore* Bachelor's seeking students registered on the AAS campus are as follows:

- Fall 2018 to spring 2019 persistence rate: 87% (All STEM who came back regardless of major)

- Fall 2018 to fall 2019 persistence rate: 77% (All STEM who came back regardless of major)

Although a small decrease is observed, the rate is still well above the 70% target set in the objective.

Rating: 4.0

Objective 4.0:   The number of applied math majors ready to apply to partner engineering institutions will increase 100% at UVI overall from 16 to 32 by fall 2020.

.

Performance Indicators: **4.1**   Number of students who complete UVI courses for the applied math major.

4.2   Number of students enrolled in partner engineering schools from each campus.

Status: In Process.

A ***Request for Change*** in the number of applied math majors ready to apply to partner engineering institutions was submitted and approved for this objective during the 2018-2019 grant year. The change was that there will be an increase of 100% at UVI from 16 to 30 by fall 2019 and an increase of 100% at UVI from 16 to 32 by fall 2020. The objective remains relevant, although there was an error in transcribing the original data; the starting value should have been 16. Further, it was intended but not stated that the objective was to be met by the end of the grant, which is fall 2020.

Objective 4.0 has two performance indicators: the number of students who have completed the applied math major courses and the number of students actually enrolled in a partner engineering school. Current data indicate the following:

	2015	2016	2017	2018	2019	2020
Coursework Completed	16	11	6	12	20	
Enrolled at Partner Schools	tbd	tbd	tbd	tbd	tbd	
Applied Math Graduates	3	4	5	4	9	

These data indicate that the number of students who have completed coursework is increasing, although the number enrolled at partner engineering schools is not reported. This may be due to the 2-3 year lag from the time a student completes coursework until graduation at the partner institution. Therefore, ***it is recommended that further research to determine the number of students completing their engineering degrees at partnering institutions be conducted should the objective remain.***

Rating: 3.0

> **Objective 5.0:**   The number of students graduating with the BA or BS degree in STEM majors at UVI will increase by 35% by 2020 from 55 (# of CSM degrees AY 14-15) to 74.

> **Performance Indicator:**   **5.1**   Number of students graduating with a degree in a STEM major at UVI as a whole.

Status: In Process.

The impact of the hurricanes may be a factor in impacting the attainment of the objective although no verifiable data have been collected and analyzed to determine hurricane impact or other factors that may have impeded students graduating with STEM degrees.

In the initial two-year operation of the grant activity, there appeared to be some enrollment impact on the AAS Campus. While overall enrollment of Science and Mathematics majors at UVI fell slightly from 461 in fall 2015 to 452 in fall 2017, enrollment for this group of students increased by 44% (from 106 to 153) on the AAS Campus. It was expected that the availability of the programs/courses on the AAS Campus would help to increase retention and graduation rates for STEM majors residing on the island of St. Croix. Students would no longer need to transfer to St. Thomas to finish their degrees in their chosen fields of study, or would need to spend a shorter amount of time to complete the degree. Although availability of courses and programs can impact enrollment and retention there is no guarantee that this alone will increase enrollment in STEM disciplines. It was previously recommended that ***Project/Activity staff plan and create information and enrollment opportunities to make students aware of the courses and programs, as well as career opportunities STEM degrees afford.*** Additionally, although the objective's outcome was projected to be produced in 2020 ***it was recommended that retention of the baseline cohort and following cohorts be tracked annually to ensure that the projected outcome would be reached by 2020, it was assumed the data would inform whether the projection was too aggressive or not aggressive enough.*** At this point it appears that the projection was too aggressive and possibly should have been revised in accordance with the overall institutional decreased enrollment resulting from the hurricane. The last data reported by the Activity Director was 53

graduated in 2016-17.

Rating: 2.5

> **Objective 6.0:**   Elementary Education majors pursuing a concentration in science or math on the AAS campus will increase fivefold by 2020 from 1 to 5.

> **Performance Indicators:** **6.1** Number of elementary education majors with a concentration in science or math.

> **6.2** Number of elementary education majors in enrolled in upper level science and/or math courses.

Status: In Process.

The intention was to measure the number of elementary education majors who are concentrating in science or math and are taking upper level math and science classes. Instead, it appears that, for the first two years, all elementary education majors taking upper level math and science classes were counted, regardless of concentration and including courses that have always been offered on the AAS campus, such as MAT 357 and SCI 301. The search query is planned to be refined to yield the data needed.

Rating: 2.5

> **Objective 7.0:**   By academic year 2019-2020, the draft plan to maintain and ultimately continue expansion of STEM offerings on the AAS campus will have been prepared for submission to the Board of Trustees.

> **Performance Indicators:** **7.1** Board approval of a plan.

> **7.2** Grant applications and other funding strategies.

7.3 Increased number of courses reconfigured as video-conferenced and/or hybrid courses.

Status: In Process.

Objective 7.0 addresses sustaining the gains achieved by the project and further expanding STEM opportunities on the AAS campus. Funding in this project has been earmarked for release time to work on grant applications, stipends for summer work to adapt existing courses for videoconferencing and/or a hybrid models, and for planning. The chemistry program completed its program review, and both the math and biology programs were scheduled for review during the initial portion of this project period. It is expected that the performance objectives will be achieved during the grant period as these activities have been planned for during this grant cycle.

A *Request to Change* the Objective from **"**By academic year 2018-2019, a plan will be developed to continue expansion of STEM offerings on the AAS campus" to "By academic year 2019-2020, the draft plan to maintain and ultimately continue expansion of STEM offerings on the AAS campus will have been prepared for submission to the Board of Trustees" was submitted and approved.

The objective remains important to the overall outcomes of the grant as well as to the degree programs and the university. It therefore continues to be *recommended that the program staff work with the UVI Sponsored Programs Office to identify and respond to additional grant opportunities that may help with the continued expansion of the program and to help sustain it once Title III/SAFRA funding is no longer available.*

Rating: 2.5

Overall Rating: 3.2

III. Resources (Fiscal and Personnel)

In 2018-2019, Title III allocated $121,169.00 from the current grant award to the Activity. The budget was later adjusted to $246,508.70, incorporating funds that remained unspent from the prior fiscal year. In April 2019, after the US Department of Education approved another project, funds were transferred from the STEM project to support "Introducing a Data Science Curriculum". Toward the end of the fiscal year, additional funds from this project were reassigned to the "Mobile Entrepreneurship Lab", which replaced a fixed computer lab on the St. Thomas

Campus that was destroyed by Hurricane Irma and introduced a new mobile lab on the Albert A. Sheen Campus on St. Croix. The final FY19 adjusted budget for this project was $185,461.23. As of September 30, 2019, $142,689.79 or 77% of the adjusted allocation was expended. Positions charged to Title III are as follows:

Physics Instructor	100%
Biology/Chemistry Faculty	100%
P/T Mathematics Faculty	

Travel:

There were no Title III funds utilized to support travel for personnel during the 2018-2019 grant year.

IV.   Challenges to Programmatic Accomplishments

The project/Activity faces several primary challenges including the need for a facility and labs resulting from the hurricanes along with the need for additional staffing. Exploring online options for tutors (as well as in person) for the upper level chemistry, physics, and math courses may be an option. The search for the physics faculty member was temporarily delayed but now moving forward to hire for the fall 2019 semester and was successful. Enrollment for a few classes is low, likely due to a combination of factors that include the continuing impact of the hurricanes as well as issues with access to the schedule and Ban web.

At the time of the review, the Research and Technology Park was yet unavailable for use. The Agricultural Department has continued to make their labs available to STEM faculty to enable them to conduct labs related to their courses.

An additional challenge to the expansion of course offerings on the AAS campus as noted previously is staffing. Science and Mathematics faculty on St. Croix are already working at capacity and relying heavily on part-time lecturers drawn largely from local high schools. As offerings were expanded in 2016-17 one new full-time faculty member and part time faculty members were hired. A new biology/chemistry full time faculty member was identified and began in the fall 2017 semester.

Other challenges continue to exist. While laboratory space in the Research and

Technology Park was adequate, it represents a serious challenge in the current and upcoming fall 2019 semester. The building is still unusable and once renovations are completed some major equipment made need replacing.

In order to implement the new programs effectively and efficiently, time will need to be allotted in faculty schedules for planning, setup and coordination. Collaboration with faculty on BIO 245, BIO 223, CHE 253, and CHE 254 all had video-conferenced lectures from the STT campus, while the labs were taught by full and part time faculty on the AAS campus. ***It is recommended that summer is used for workshop and curriculum development, planning and assessing student learning outcomes and possible/potential available resources.***

Finally, the lack of a group of mid- and upper-level STEM students on the AAS campus continues to have a negative effect on introductory-level math and science. Systems necessary to limit attrition in the difficult fields of mathematics, biology and chemistry. Tutors for these areas are still needed to help address the need for tutors and peer mentors, therefore, ***it is recommended that the Activity Director considers on-line tutoring programs for specific courses, especially math, should there not be available tutors for the specific courses on the campus of St. Croix.***

V.   <u>Program Impact, Summary and Recommendations</u>

The major accomplishment of this past year was offering all of the courses for the applied math major, as well as the sophomore level biology and chemistry courses; this was the first major step in the expansion of STEM opportunities on the AAS campus. Further, the Activity continued to move forward in solidifying the establishment of the expansion by hiring Dr. Verleen McSween to teach biology and chemistry classes. Dr. McSween started in fall 2017, and Dr. Michael Henry, begins fall 2019.

The project is designed to help increase the number of STEM majors and STEM graduates at UVI and focuses upon an incremental expansion of classes that can support students in their persistence as well as progression towards attaining degrees in STEM fields. Many of the courses proposed for expansion have seen growth in enrollment over the past five years, necessitating either additional sections/labs or over-enrollment of existing sections on St. Thomas (see Table 2, below). These courses are natural candidates to be offered at the AAS campus; not only does this benefit students wishing or needing to remain on St. Croix, but it also helps to relieve the pressure on resources on St. Thomas.

The program supports the development of new opportunities for science and mathematics majors on the Albert A. Sheen Campus of the University of the Virgin Islands. Development of new and innovative courses and related offerings will allow students majoring in chemistry, biology, marine biology and pure mathematics to complete their sophomore years on the AAS campus before transferring to St. Thomas. Access to the core courses of the environmental science, health science, and computational science minors will be significantly enhanced as well as with education majors.

It is planned that at the end of this project's five-year timeline, the AAS campus will have established a vibrant community of STEM learners with a critical mass sufficient to sustain the science and mathematics programs at UVI St. Croix.

The need for additional student support became apparent, and upon recommendation of the evaluators, carryover funds were provided to hire tutors. Several candidates were approached, but all were unavailable; these efforts will be continued. It is therefore recommended that *the Activity Director and staff consider "on-line" tutoring programs to provide the tutoring support students need.*

Additional institutional benefits can be derived from the project/program. The project can offer courses that support other programs such as education, and the project and staff have potential to collaborate or partner with the newly planned medical school and related technology facility by also offering courses required in those areas as well. In all the plan for this project and its expanded and enhanced course offerings have the potential to improve student learning and student learning outcomes at the Albert A. Sheen Campus and the University as a whole, and to address and improve student persistence as well as progression in mathematics and the sciences.

Recommendations:

The following recommendations are being offered to further enhance the implementation of the processes and programs that were supported by Title III during the 2018-2019 grant period. It is recommended that:

Recommendation 1

The Activity Director continues to work with institutional research to track student persistence, progression, retention and academic success in the courses offered at the Albert Sheen Campus of the University of the Virgin Islands.

Recommendation 2

The Activity Director works with institutional research to gather data to compare student learning outcomes/student success from before the addition of the math and sciences courses at St. Croix to the success of St Croix students formerly at St. Thomas.

Recommendation 3

The Activity Director considers using an on-line tutoring program for math and other specific STEM gateway courses should the program not be available to secure math tutors for the specific courses on the campus of St. Croix.

Recommendation 4

The rate of persistence of the baseline cohort be tracked annually to ensure that the projected outcome will be reached by September 30, 2020.

Recommendation 5

The Activity Director includes in future plans possible summer science/math camps for high school students to begin to build a pipeline into the math and science programs at UVI, specifically at the St. Croix campus.

Recommendation 6

The Activity Director and related math and science faculty work with Sponsored Programs to identify potential funding to expand and or sustain the program beyond Title III/SAFRA funding.

Recommendation 7

The Activity/Project staff work closely with teacher education to communicate the STEM opportunities to help increase the numbers of education major students taking advantage of the STEM course options.

Recommendation 8

The Activity Director considers using grant funds during the summer for workshop and curriculum development, planning and assessing student learning outcomes and available resources.

Recommendation 10

Project/Activity staff plan and create information and enrollment opportunities to make students aware of the courses and programs being offered, as well as career opportunities STEM degrees afford.

Recommendation 11

Further research to determine the number of students completing their engineering degrees at partnering institutions be conducted should the objective remain.

Documents Reviewed

Proposal/Plan of Action

Quarterly Reports

Institutional Annual Report

Person Interviewed

Dr. Michelle Peterson, Activity Director

INTRODUCING A DATA SCIENCE CURRICULUM AT THE UNIVERSITY OF THE VIRGIN ISLANDS
SAFRA (CARRY-OVER)

I. <u>Introduction</u>

The Data Science project is consistent with the University's Pathways to Greatness Strategic Plan focus area "Academic Quality and Excellence," which calls for the continued development and enhancement of academic programs and research initiatives and identifying the appropriate faculty and staff with the expertise needed to support these initiatives. Additionally, the Data Science Program is also consistent with the Title III Academic Quality focus area where projects are intended to improve those factors that contribute to the educational capacity of the institution. The Data Science supports this goal by increasing the number of degree programs and students' exposure in learning through research activities.

The field of Data Science and Data Analytics is cross-disciplinary and has the potential of enhancing any discipline where collection and analysis of data provide insight for researchers. Various disciplines such as business, social sciences, computer science, natural and physical science depend on analysis of large data sets for furthering understanding of phenomena impacting their disciplines. Additionally, a McKinsey study estimated in 2011 that the United States will soon require 60 percent more graduates able to handle large amounts of data as part of their daily jobs.

Recent advances in computing technology have transformed the way many scientists combine the power of computing tools such as modeling, simulation, data visualization and data mining to solve complex data intensive problems. The University of the Virgin Islands (UVI) has successfully infused interdisciplinary research experiences into the STEM curriculum and also developed interdisciplinary programs in computational sciences. The ability of UVI researchers to collect, prepare, manipulate, analyze, and visualize large data sets have a profound impact on solving problems relevant to our communities in areas such as oceanography, atmospheric science, astronomy, genetics, energy and cybersecurity. In this context, UVI has the opportunity and obligation to contribute to the preparation and training of Virgin Islanders data scientists in order to join local and global research projects.

Despite the increasing number of data science related programs, academia cannot meet the

industry demands. In a recent study funded by the National Science Foundation, Award #: DUE 1545135 (Workshop on Data Science Education), 200 colleges and universities were already offering degrees in data science in 2016. This number is even higher today, however, this number of programs is not sufficient.

In 2014, International Data Corporation (IDC) predicted a deficit of 181,000 data science practitioners in the US by 2018, and a need for five times that number in other positions such as data management and data analysis capabilities. In its current predictions, IDC sees 50% of global GDP being digitized by 2021, and by 2020, "90% of large enterprises will generate revenue from Data as a Service" (https://www.idc.com/research/viewtoc.jsp?containerId=US43171317).

Multiple funding agencies are recognizing the urgency to prepare the workforce in this field by investing more than $200 million in new initiatives to improve the tools and techniques to:

- Advance state-of-the-art core technologies needed to collect, store, preserve, manage, analyze and share huge quantities of data.
- Harness these technologies to accelerate the pace of discovery in science and engineering, strengthen our national security, and transform teaching and learning; and
- Expand the workforce needed to develop and use big data technologies.

To address these gaps and enhance the academic offerings, the University of the Virgin Islands aims to develop data science or data analytics programs, initially as a minor or certificate, that will attract students from a variety of areas. Given the increasing explosion of data generated from multiple sources and a growing interest driven by data-intensive research, there has been a great interest at UVI to develop data science programs that will better prepare and train future scientists and decision makers.

With Title III funding, UVI has begun to develop and offer new interdisciplinary data science programs by leveraging the strengths of the College of Science and Mathematics, School of Business, and the College of Liberal Arts and Social Sciences. These new programs will enable cross-fertilization between teaching and research and connect classrooms with real-world experiences and discovery.

II.   Specific Objectives, Implementation Strategies and Accomplishments

The following objectives and performance indicators guided the Activity for the 2018-2019 grant year:

Objective 1.0:   To increase the number of relevant faculty with expertise in Data Science from 6 to 7 by September 30, 2019.

Performance Indicators: **1.1**   Recruit curriculum expertise in Data Science

1.2   Provide two (2) opportunities for faculty, researchers and students to gain training in data science or data analytics.

1.3   Identify UVI task force members from representative Colleges and Schools.

Status: Accomplished.

The University's Title III Office requested of the US Department of Education's Office of Postsecondary Education/OASPE and received approval to utilize $51,000 of unspent funds from the Title III Part F SAFRA grant (Grant No. P031B150041) to develop a Data Science Program at the University of the Virgin Islands (UVI). This request is consistent with Section 323 (a) (4) of the Higher Education Act of 1965, which provides for "[a]cademic instruction in discipline in which Black Americans are underrepresented."

The focus of this Activity is to increase UVI's ability to offer programs or consultation in the area of Data Science. Dr. Joanne Luciano joined the faculty at the University of the Virgin Islands, thus increasing the number of faculty with expertise in Data Science by one (1). Some of the existing research conducted at UVI by faculty with some expertise in Data Science is summarized below:

- ***Dr. Sennai Habtes***, Biological Oceanographer, focuses on analyzing timeseries data to study patterns in, and impacts to marine organisms in tropical and subtropical regions. Data from satellite, airborne and in-situ oceanographic sensors

processed to understand large marine ecosystems at synoptic spatial and longer temporal scales. Knowledge inferred from these data are used to develop better tools for ecosystem based management and fisheries decision support systems.

- **_Dr. David J Smith_**, Physics, recently retired, seeks to establish local weather forecasts for the US Virgin Islands and eventually for neighboring islands as well. He was running the Weather Research and Forecasting model on 120 node cluster to generate microscale (< 1.0 km) forecasts for the Virgin Islands region.

- **_Dr. Robert Stolz_**, Mathematics, develops models using machine learning methods in various domains such as environmental systems and proteomics. In proteomics the study consists in developing and testing new numerical descriptors from time sequences of protein images and using methods from manifold learning to understand the underlying structure of the space of protein images and develop generative models of the depiction of protein images. Optical flow calculations, a technique used to quantify motion in the field of computer vision, is used to develop new descriptors based on protein motion. Protein images are considered as high dimensional data that are sampled from a low dimensional manifold. Recent developments in the field of manifold learning, and nonlinear dimensionality reduction are applied to protein images in order to understand this underlying manifold. These results are useful in applications for simulating protein images.

- **_Dr. Tyler Smith_**, Marine Biology, studies the dynamics of reef populations, interactions between reef organisms and how these interactions are modified by physical forcing and man. His current research focuses on the ecological effects of bleaching events, terrestrial input and upwelling. He is conducting innovative research using a multidisciplinary approach combining reef monitoring, physical oceanography, watershed studies and statistically based experiments in an effort to identify the most critical factors increasing and allaying reef stress.

- **_Dr. Marilyn Brandt_**, Marine Biology and Coral Reef Biology, research links local and regional stressors to the processes that structure complex coral communities and understand how these translate to ecosystem functioning. She combines field-based ecological studies with advanced analytical techniques. This research includes conducting intensive field studies specifically targeted towards

quantifying coral susceptibility and resistance to mortality-causing stressors, with a particular emphasis on the risk factors involved in coral disease incidence, severity and spread. She then uses the results of these studies and data from established monitoring programs to parameterize empirically-based modeling tools used to understand how colony-level characteristics (e.g., growth rates) and impacts (e.g., mortality due to disease) translate to ecosystem-level dynamics, with the intent of identifying specific properties that maintain resilience in diverse coral communities.

- ***Dr. Marc Boumedine,*** Computer Science, focuses on Knowledge Discovery using data mining techniques. One research area is to use machine learning techniques to discover models (predictive, association) from large data sets. One application is to use historical data sets collected from NOAA to predict early coral bleaching in the USVI. Other research areas are malware analysis and Power Grid monitoring and detection of anomalies.

Rating: 4.0

Objective 2.0: To have a fully approved curriculum in Data Science at the University of the Virgin Islands by September 30, 2019. This will include approvals by the Computer Science Department, the College of Science and Mathematics, the Curriculum Committee and the University Faculty.

Performance Indicator: 2.1: Develop and implement Data Science Curriculum.

Status: In Process.

When establishing a program in Data Sciences at the University of the Virgin Islands was first conceived, based on research into other data science curricula, it was decided that UVI will first determine the best format for an initial data science program. With the leadership of the Data Science Curriculum Expert and with the consultation of the Advisory Board, UVI will review certificates, minors, bachelor's programs, and analyze UVI's skill and resource gaps,

and current demand in the data science industry. The University is planning to offer a minor in Data Science that will be eighteen (18) credit hours and a certificate that will be open to the community that will require fifteen (15) credit hours for completion.

In 2016, the National Science Foundation (NSF) and the Institute for Advanced Study at Princeton (IAS) sponsored a workshop (Park City Math Institute) the main goal of which was to produce curriculum guidelines for an undergraduate degree in Data science. The outcomes of this workshop are a set of guidelines for developing data science programs and the outline of the program is provided below.

- **Intro to Data Science**
  - Intro to Data Science I
  - Intro to Data Science II

- **Mathematical Foundations**
  - Mathematics for Data Science I
  - Mathematics for Data Science II

- **Computational Thinking**
  - Algorithms and Software Concepts
  - Databases and Data Management

- **Statistical Thinking**
  - Intro to Statistical Models
  - Statistical and Machine Learning

- **Course in an Outside Discipline**

- **Capstone Course**

During the 2017-2018 academic year, a group of faculty from the College of Science and Mathematics, College of Liberal Arts and Social Sciences, the School of Business, researchers from UVI's Research and Public Service sector, UVI's EPSCoR program, and UVI's Caribbean Green Technology Center and industry partners met periodically to lay the groundwork for program and curriculum development.

Having received approval from the US Department of Education's Office of

Postsecondary Education/OASPE, the hiring of the Data Science faculty and development of the Data Science Program were initiated. A new selected topics course, ***Introduction to the Data Science Workflow***, was created in the Department of Computer and Computational Sciences in the College of Science and Mathematics. The course was approved by the College and offered in Spring 2019 with ten (10) students enrolled and for a second time in Fall, 2019 with three (3) students enrolled.

To continue the preparation for cross-institutional data science curriculum development, Dr. Luciano continued to meet with faculty from across the University, the School of Business, College of Liberal Arts and Social Sciences, departments within the College of Science and Mathematics and Arts and Humanities. In addition, the conversation with the partner institutions and mentors who were previously identified were updated with respect to the new timeline and updates of curriculum development for workshop programs for students that would provide opportunities for real-world experience.

Faculty are continuing the development of the Data Science Curriculum and are revising the course offerings to better fit with the existing structure and sequence of courses that the students take in their major. This new minor will be eighteen (18) credit hours. A course at the 200 level is currently being developed to introduce students to data science fundamentals. This 200-level course provides the fundamentals for the minor in data science which will be available to all students. There will have to be additional modifications to required 100 level courses in science and computer science to introduce students to data science.

The second course, a 400-level course, is designed to take the student through the data science workflow. Both courses will be required for students who minor in Data Science and as stated previously the 400 level course has been offered in the Spring and Fall of 2019. Students with STEM majors will be in position to take the 200-level course in their sophomore year whereas students minoring in data science from non-STEM majors can take the two data science courses in their junior or senior year depending on when they complete the prerequisites.

As a value-added component to this Activity, Dr. Luciano established two clubs to engage students, faculty and staff. A student-led Data Science Analytics and Blockchain Club has nine (9) students and eight (8) faculty and staff participants. The second club is an Aviation Club that has twenty-nine (29) students, faculty and staff are members.

Rating: 4.0

Overall Rating: 4.0

III.   Resources (Fiscal and Personnel)

In 2018-2019, the Title III adjusted budget allocation to the Activity was $51,000.   As of September 30, 2019, $44,192.22 or 87% of the allocation was expended.

IV.   Challenges to Programmatic Accomplishments

There were no challenges that precluded the successful implementation of this Activity.

V.   Program Impact, Summary and Recommendations

A major milestone was the development and offering of a new course in Data Science and increased collaboration between the College of Science and Mathematics and the School of Business. The data science course was given again in Fall 2019. Further collaboration was developed with the Cooperative Extension Service. A collaboration resulted with Indiana University, the UVI cooperative Extension, the Department of Agriculture on drought research and the UVI College of Science and Mathematics. An Indiana University alumnus who completed a Master's in Data Science and was a former student and research assistant to Dr. Luciano has been volunteering his time to meet and provide feedback to students and to talk about his experiences working in the field of data science.

Faculty were able to offer education in blockchain technology in collaboration with support from the Morgan State University FinTech Center as a result of curriculum modifications. The MSU Fintech Center is driving an effort to advance Blockchain education at HBCUs by providing faculty incentives, training and curriculum development opportunities. A student-led Data Science, Analytics and Blockchain Club was established at UVI. Dr. Luciano won a faculty-incentive award for course modifications to include blockchain in the curriculum. This enabled her to participate in the HBCU Faculty Institute in October 2019.

Three (3) UVI alumni who have interest and experience in blockchain technology are creating relevant content to educate current UVI students based on their experience with

Blockchain technologies. One of them, when he was a student, accompanied Dr. Luciano to the first HBCU Inaugural Summit on Blockchain Technology at Morgan State University as a Student Ambassador with his expenses paid by Morgan State.

<u>Documents Reviewed</u>

Request to US Department of Education's Office of Postsecondary Education/OASPE

Quarterly Reports

Budget

<u>Persons Interviewed</u>

Dr. Camille McKayle, Provost/Activity Director

Dr. J. Luciano, Distinguished Professor

ESTABLISHING A MOBILE ENTREPRENEURSHIP LAB AT THE UNIVERSITY OF THE VIRGIN ISLANDS

I. Introduction

In the fall of 2017, hurricanes Irma and Maria destroyed the computer lab of the School of Business on the St. Thomas Campus of the University of the Virgin Islands, including its 20 computers that were used for student course work. The School of Business has since transitioned many courses normally taught in a computer lab to a traditional classroom environment. For example, courses such as Introduction to Programming Logic (IST 201), Database Design and Implementation (IST 305), and Data Communications and Network Management (IST 315) have been taught in traditional classroom settings rather than computer labs since fall 2017.

This proposal seeks to remedy the loss of this vital piece of infrastructure in such a way as to improve student service while hardening these resources to future natural disasters. It will also establish a new lab on the Albert A. Sheen Campus on St. Croix, with the same mobility and resilience to natural disasters as will be present on the St. Thomas Campus.

The proposed computer labs will support a number of processes in the School of Business related to the new UVI strategic plan for the period 2018-23—Greatness Through Innovation. The MEL will support curricular activities at the School of Business, including providing a computer lab environment for courses such as Introduction to Programming Logic (IST 201), Database Design and Implementation (IST 305), and Data Communications and Network Management (IST 315).

Many other courses in the School of Business can also benefit from these resources, but the benefits are not restricted to the School of Business. For example, the MEL could also be used to provide computer lab capacity to the University-wide requirement for Computer Literacy Examinations. The first goal of Focus Area II in the Strategic Plan 2018-2023 promotes the notion that "UVI will become a leader in the utilization of current, resilient, and reliable instructional technology". The Mobile Entrepreneurship Lab promotes this goal by creating a stable, flexible and mobile platform for instruction in any location with electricity.

In addition to the curricular benefits, the MEL resources will also support many extracurricular instructional activities at the School of Business. For example, the MEL could augment current practices such as the Student Hack-a-thon—a competition in which students

are invited to develop mobile applications that address real-life issues faced by students, faculty and staff at the institution. Last year, the MIS Department sponsored several student-development workshops, including a technical workshop on Python programming. The MEL will help the School of Business increase engagement in these "faculty-led out-of-classroom student learning experiences" (one of the strategies articulated in Greatness Through Innovation). Moreover, the proposed resources could also support new initiatives in student engagement. For example, the MIS Department plans to hold an advising open house to improve student engagement with the advising process.

II.   Specific Objectives, Implementation Strategies and Accomplishments

The following objectives and performance indicators guided the Activity for the 2018-2019 grant year:

Objective 1.0:   By fall 2020, at least 50% of students enrolled in IST 201 will have access to computer resources in class. The baseline figure is 0% since the fall 2019 semester.

Objective 2.0:   By spring 2020, at least 50% of students enrolled in IST 305 will have access to computer resources in class. The baseline figure is 0% since the fall 2017 semester.

Objective 3.0:   By fall 2020, at least 50% of students enrolled in IST 315 will have access to computer resources in class. The baseline figure is 0% since the fall 2017 semester.

Status: In Process/Ongoing.

The University's Title III Office requested of the US Department of Education's Office of Postsecondary Education/OASPE and received approval to utilize $33,000 of unspent funds from the Title III Part F SAFRA grant (Grant No. P031B150041) to establish new Mobile Entrepreneurship Lab (MEL) on both campuses of the University of the Virgin Islands (UVI). This request is intended to support the Management Information Systems (MIS) Department and the

Entrepreneurship Program in the School of Business and is consistent with Section 323 (a) (4) of the Higher Education Act of 1965, which provides for "[a]cademic instruction in disciplines in which Black Americans are underrepresented."

Objectives 1.0, 2.0 and 3.0 will be discussed in tandem given they are both reliant upon receiving the computers for use by the students. This Activity focused on providing a computer lab environment for courses such as Introduction to Programming Logic (IST 201), Database Design and Implementation (IST 305), and Data Communications and Network Management (IST315). At the time of the external summative evaluation, twenty (20) computers were in the process of being configured by the University's IT department. Once the configuration is completed, the Activity Director will add course specific tools. Ten (10) computers will be placed on the St. Thomas campus and ten (10) will be used at the campus on St. Croix. The mobility of the computers comes from specialty cases that were configured to house ten (10) units each.

During the spring semester 2020, one (1) course will be taught using the mobile units, namely, IST 305, Database Design and Implementation. In the fall 2020, IST 201, Introduction to Programming Logic, and IST 315, Data Communications and Network Management, will be added to the schedule and will be taught using the computers. The full impact of this Activity will be reported by September 30, 2020.

Overall Rating: N/A

III.   Resources (Fiscal and Personnel)

In 2018-2019, the Title III allocation was $33,000.00 to the Activity.

IV.   Challenges to Programmatic Accomplishments

There were no challenges that precluded the implementation of this Activity. Now that the computers were ordered and received, courses will be taught using the mobile configuration in spring and fall 2020.

V. Program Impact, Summary and Recommendations

The impact of this Activity will be documented once the courses have been taught. However, *it is recommended that the Activity Director documents that the 50% outcome was met for Objectives 1.0, 2.0 and 3.0*. Further, *it is recommended that the Activity Director includes in his quarterly reports the competencies that students can demonstrate as a result of having the new equipment that they could not have readily demonstrated without the use of the equipment.*

Recommendations:

The following recommendations are being offered to further enhance the implementation of the processes and programs that were supported by Title III during the 2018-2019 grant period. It is recommended that:

Recommendation 1

The Activity Director documents that the 50% outcome was met for Objectives 1.0, 2.0 and 3.0.

Recommendation 2

The Activity Director includes in his quarterly reports the competencies that students can demonstrate as a result of having the new equipment that they could not have readily demonstrated without the use of the equipment.

Documents Reviewed

Request to US Department of Education's Office of Postsecondary Education/OASPE

Quarterly Report

Person Interviewed

Dr. T. Lombardi, Activity Director

<center>**PROGRAM ADMINISTRATION**</center>
<center>**SAFRA**</center>

I.   <u>Introduction</u>

The University of the Virgin Islands Title III Project Administration office is responsible for the day-to-day operation of the grant program, pursuant the directives of the President of the institution, who serves as Principal Investigator. The plan of operation indicates the tasks, outputs and outcomes that are anticipated during the fourth year of the 2015-20 Student Aid and Fiscal Responsibility Act (SAFRA) grant cycle, the theme of which is *Continuing on the Pathway to Greatness*.

Through a variety of measures, the Project Administration office ensures that the programmatic and financial components of the University of the Virgin Islands' SAFRA grant program are operating pursuant the approved plans of operation and budgets, as well as the requirements of the U.S. Department of Education (USED) and all other applicable rules, regulations and policies. The following procedures comprise the project management and compliance actions utilized by the Project Administration office:

- annual review and update (as needed) of the Title III Policies and Procedures Manual; regular review of expenditure requests and reporting of spending; quarterly meetings with the President and Activity Directors;
- quarterly progress reports from all Activity Directors;
- periodic meetings with individual Activity Directors;
- provision of information to Activity Directors as needed;
- early and mid-term formative evaluations of all activities; and
- implementation of recommendations from formative evaluations.

During Year 3 of the five-year cycle, a mid-term formative evaluation of the 2015-20 Comprehensive Development Plan was conducted by Associates for Institutional Development (AID). The report offered recommendations for changes to the 2015-20 SAFRA Comprehensive Development Plan, many of which were intended to reshape the implementation of the approved projects after the advent of two destructive Category 5 hurricanes in fall 2017.

During the grant year, the Coordinator continued to function as a part of the team of Title III administrators that is collaborating with the Office of Institutional Services at the US

Department of Education to provide recommendations regarding the reauthorization of the Higher Education Act (HEA) of 1965, as amended. Changes to the HEA can impact the operation of the grant program for the life of the reauthorization.

The Project Administration office places a high priority on continuing education/professional development for staff. To ensure that the grant program operates in a manner that is consistent with the requirements of the U.S. Department of Education and with all applicable laws and regulations, training is provided for the Grants Management Specialist and the Title III Coordinator. The cost of the workshops and courses is shared proportionately with the Part B grant program.

The objectives established for the Project Administration function during the period include:

- ensuring that the rate of unspent funds at the end of the grant period (September 30, 2019) does not exceed 20% of the project award;
- ensuring that during the grant year, there are no A-133 audit findings associated with the operation of the UVI Title III Part B grant program; and
- ensuring compliance with all submittal deadlines established by the U.S. Department of Education within the 2018-19 grant year.

Anticipated outcomes for Project Administration for the 2018-19 grant year include:

- completion of not less than 80% of the established SAFRA project goals/objectives for the 2018-19 grant year;
- reduction from one to zero audit findings due to inappropriate grant management/implementation; and
- reduced risk of losing grant funds due to non-compliance with USED mandates.

II. Specific Objectives, Implementation Strategies, and Accomplishments

The following objectives and performance indicators guided the Activity for the 2018-2019 grant year:

Objective 1.0: To ensure that the rate of unspent funds at the end of the grant year (September 30, 2019) does not exceed 20% of the project award.

Performance Indicators: **1.1**   Ratio of remaining funds to total award.

                                1.2   Ratio of incomplete to total program objectives.

Status: Accomplished/Ongoing.

The fiscal responsibilities of the Title III Office are implemented utilizing best practices and are consistent with the federal regulations governing Title III Programs. Budgets are balanced and reconciled on an ongoing basis, activity progress is monitored, technical assistance provided as needed, and expenditures are appropriate for attainment of the objectives. Over the five-year grant period expenditures averaged approximately 80% of each year's allocation. Remaining funds were reprogrammed to help address additional university priorities, consistent with the University's Strategic Plan and the Comprehensive Development Plan approved by the US Department of Education.

The Title III Office at UVI continues to carry out the five major administrative functions including coordination, liaison with internal and external constituents, evaluation, grant fiscal concerns, and providing technical assistance, although some Activity Directors continue to report incomplete information which requires the Title III Office to interact with each personally to expand, correct and improve the submissions. During the 2018-19 grant year the Title III Office continued its use of an electronic tracking system that provides information about document routing. Title III office staff are able to document when requests, reports and purchases orders are received in the Title III office and when the same documents are approved and moved to the next approval office. The system is able to receive the variety of documents handled by the office and logs in the date received, document type, the action taken, date of the action taken, document destination, date sent and any comments. This process ensures that the office is able to move approvals for expenditures along quickly and to confirm that expenditures occur in a timely manner. The system thus supports the office in monitoring expenditures and ensuring they occur timely to meet grant expenditure requirements.

Rating: 4.5

Objective 2.0:   To ensure that the A-133 Audit for FY19 does not include any findings associated with the operation of the UVI Title III Part B grant program.

Performance Indicators: **2.1**   Number of A-133 audit findings related to inappropriate Title III program practices for the 2018-19 grant year.

Status: Accomplished/On-Going.

There were no A-133 audit findings or issues rising from the implementation of new Super Circular changes related to inappropriate Title III Program practices for the 2017-18 grant year. An audit concern arose in 2016-17 that was addressed by the university during the grant period that required the university to ensure that purchasing procedures included a practice for the Purchasing Office to comply with regulations such as that of checking new vendors to ensure they are eligible to provide goods and services to federally funded programs. The department would need to include a practice to document that the office had ensured that new vendors' eligibility had been checked through the debarment and suspension lists both at the state and federal levels. The Title III Office already had a provision in its contract that required vendors who receive Title III grant funds to comply with all federal regulations including not being on the federal Debarment or Suspension list. The Title III contract indicates the following:

P. FEDERAL CONTRACTUAL REQUIREMENTS

The source of funding for this agreement is federal grant dollars from the US Department of Education. Consequently, (NOP) is required to adhere to the applicable contract provisions in 2 CFR Part 200 Appendix II, incorporated herein by reference. These requirements may be found at http://www.gpo.gov/fdsys/pkg/CFR-2014-title2-vol1/pdf/CFR-2014-title2-vol1-part200-appII.pdf.

A critical component of the operation of the Project/Program Administration Office is continuing education/professional development for staff. To ensure that the grant program operates in a manner that is consistent with the requirements of the U.S. Department of Education and with all applicable laws and regulations, training is provided for the Title III staff assigned to the Title III Part B and Student Aid and Fiscal Responsibility Act (SAFRA) grant programs. The cost of the workshops and courses is shared proportionately with the HBCU grant program.

Title III staff have completed the Grant Management certification program presented by Management Concepts and attended professional meetings and technical training workshops throughout the five-year period. Training in which staff participated was designed to strengthen the efficiency and effectiveness with which UVI Title III programs are administered.

The Title III Coordinator, Mr. Barry, continues to work with the National Association of HBCU Title III Administrators, Inc. He also works with the organization's Assessment Committee to provide input to the Department of Education on matters of importance to Association Members and their respective institutions. Additionally, he has assumed responsibility to ensure certification courses are made available to all HBCU Title III administrators and staff during the annual technical assistance workshop/conference of the Association.

Rating: **4.5**

Objective 3.0: Comply with all submittal deadlines established by the US. Department of Education within the 2018–19 grant year.

Performance Indicators: **3.1** No A-133 audit findings related to Title III program operation for the 2016-17 grant year.
3.2 Annual Performance Report submitted on time.
3.3 Phase I Formula Data submitted on time.
3.4 Phase II Workplan and Budget submitted on time.

Status: Accomplished/Ongoing.

This objective is accomplished annually by Program Administration staff. Through a variety of measures, the Project Administration Office ensures that the programmatic and financial components of the UVI Title III Part B grant program are operating pursuant to the approved work plans and budgets, as well as the requirements of the U.S. Department of Education and all other applicable rules, regulations, and policies. Additionally, office staff update the Title III Policy and Procedure manual every other year to ensure office procedures remain updated and consistent with Department of Education rules and regulations as well as policies and procedures of the University. The office staff ensure that the President of the University is informed of program activity and

expenditures through regular written reports that are provide at least quarterly for both HBCU and SAFRA programs. Progress of each funded activity is presented along with budget updates and recommendations for the use of unspent funds.

Title III Program Administration has worked diligently to ensure compliance with all submittal deadlines established by the U.S. Department of Education within the 2018-2019 grant year as well as throughout the HBCU and SAFRA grant cycles. Documentation as proof of report submission is maintained by the Title III office, however for possible auditing purposes *it is recommended that the office uses the electronic file system created by the office for maintaining Activity documents and correspondence for documenting the office reports to the president as well as DOE reports and other information related to the administration and management of the Title III Office.*

Rating: 4.5

Overall Rating: 4.5

III.   Resources (Fiscal and Personnel)

In 2018-2019, Title III allocated $103,901 to Program Administration. In 2018-2019, the Title III adjusted budget allocation was $9,637.00. As of September 30, 2019, $113,538.00 or 89% of the allocation was expended. Positions charged to Title IIII were:

Grants Management Specialist	45%
Title III Coordinator	45%
Vice Provost	11.5%

Travel:

Title III funds were expended to support travel for the following staff during the 2018-2019 grant year:

Date and Destination	Purpose of Travel	Traveler	Incorporation of Outcomes to Strengthen Activity
Quarterly Visits	Title III St. Croix Campus Site Visit	J. Berkeley D. Barry	Activity Monitoring, technical assistance

Date and Destination	Purpose of Travel	Traveler	Incorporation of Outcomes to Strengthen Activity
June 2019	National Association of HBCU Title III Administrator's Workshop Technical Assistance Workshop	J. Berkeley D. Barry Supervisor	Training
September 2019	White House Initiative	D. Barry J. Berkeley	Grant Information
	American Evaluation Association Workshop	D. Barry J. Berkeley	Training

IV.   **<u>Challenges to Programmatic Accomplishments</u>**

No challenges impeding the appropriate administration of the office or the effective oversight of Activities were observed during the on-site evaluation of Title III programs.

V.   **<u>Program Impact, Summary and Recommendations</u>**

The Program Administration Office continues to have impact on the activities of UVI by providing excellent oversight, support and guidance. The funds administered through the Title III grants support the University's Strategic Plan and priorities helping the University achieve its goals related to the Plan. Title III grant funding continues to be important to the University's plans for growth, creating and implementing new programs, and enhancing its current academic profile as the Territory cannot provide resources to adequately address the infrastructure and academic challenges of the University.

The effective manner in which Title III funds are used to complement Territory funds is commendable. Additionally, the office is to be commended for working with the University to create sustainable academic programs and to work to support programmatic changes that were required as a result of the infrastructure and facilities damages sustained by the university resulting from the two hurricanes which brought immense devastation to the islands of both St. Croix and St. Thomas.

Recommendation:

The following recommendation is being offered to further enhance the implementation of the processes and programs that were supported by Title III during the 2018-2019 grant period. It is recommended that the office uses the electronic file system created by the office for maintaining Activity documents and correspondence for documenting the office reports to the president as well as DOE reports and other information related to the administration and management of the Title III Office.

Documents Reviewed

2017-2018 APR

Budgets

Financial Statements

Email Reports to the President

Time and Effort Reports

2017-18 Plan of Operation

Transaction Tracking Report

Travel Reports

Persons Interviewed

Mr. Dayle Barry, Tittle III Coordinator

Mr. Jarelle Berkley, Grants Administration Specialist