

November 16, 2021
1:00-3:30 pm EST
2:00-4:30 AST

*The National
Academies of*

SCIENCES
ENGINEERING
MEDICINE

A Virtual Town Hall

RETHINKING THE STEM PIPELINE

UVI'S HOLISTIC APPROACH TO STUDENT
PREPARATION FOR THE STEM WORKFORCE

WELCOME



VIRGIN ISLANDS **epscor**



Let's Get Started

Dr. Lawanda Cummings

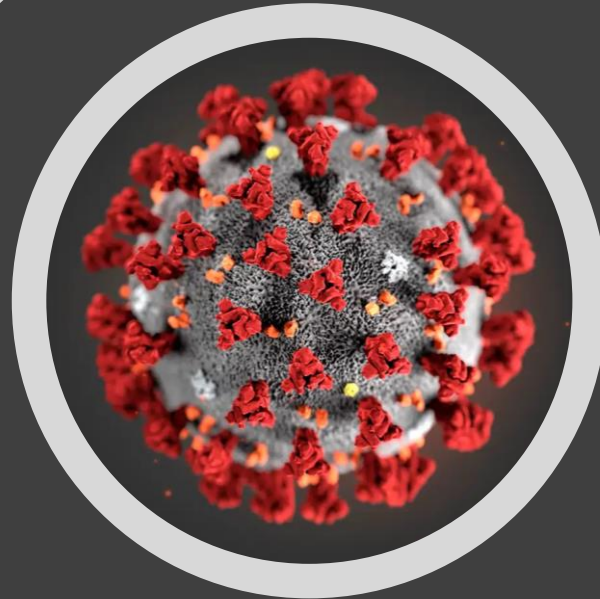
- Director of STEM Education Research and Workforce Development for The Virgin Islands Established Program to Stimulate Competitive Research (VI-EPSCoR) program
- Co-Director of the Florida-Caribbean Louis Stokes Regional Center for Excellence (FL-C LSRCE)
- An HBCU faculty member for 10 years, teaching research methodology and statistics
- Trained as a Community Organizational Psychologist





Living through the 4 pandemics

- A “re-set” is required to authentically engage in pedagogy that is culturally relevant and will support and promote students’ culture and consider students’ circumstances given these crises.



Ladson-Billings, 2020

National Agenda for STEM Workforce Development

- Need 1 Million more STEM Baccalaureates in the next 10 years (PCAST, 2012)
- STEM has immense growth
 - Reduce racial and gender gaps in income & prestigious employment opportunities
 - 16%-62% growth in various STEM industries (comparable to 14% in Non-STEM areas)





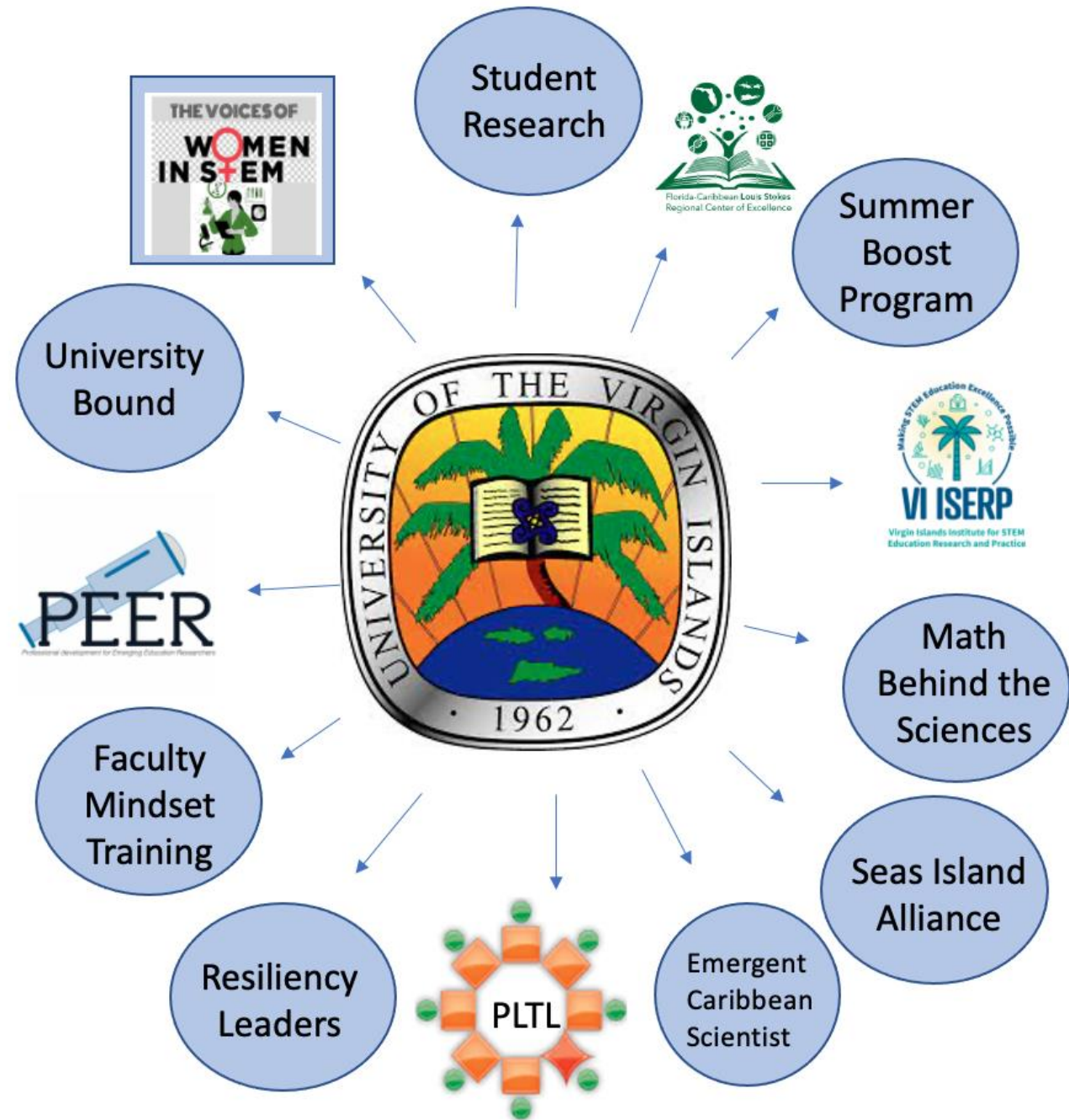
HBCUs and STEM Success

HBCUs are SUCCESSFULLY preparing students for the STEM Workforce of Tomorrow

- 25% of African American graduates with STEM degrees come from HBCUs.
- 46% of Black women in STEM disciplines graduated from HBCUs between 1995 and 2004
- 30% of STEM doctorates received their undergraduate degrees from HBCUs



UVI Constellation of Supports



UVI GROWTH MODEL

Integrated system

PRE-COLLEGE EXPERIENCE
"Math Behind the Science"

Family

Goals and Commitments

Skills and Abilities

Prior Schooling

ACADEMIC SYSTEM

Formal/Course Related



Academic Support



Academic Intervention



Research Experiences



Informal/Not Course Related



SOCIAL SYSTEM

Formal/Course Related



Informal/Not Course Related



Academic Integration

Intentions

Goals and Institutional Commitment

STEM RETENTION

External Commitments

UVI STEM Workforce Approaches



PRE-COLLEGE
COMMUNITY



COLLEGE
HIGHER EDUCATION



EARLY CAREER SUPPORT



PRE-COLLEGE COMMUNITY

1. **Mr. Jarvon Stout**, Community Outreach Specialist and Informal Learning Lead, VI-EPSCoR
2. **Ms. Rosalia Rohan**, Director of University Bound
3. **Dr. Nadia Monrose Mills**, Assistant Professor of Mathematics/Component Lead for Teacher Professional Development (VI-EPSCoR)

Moderator: Dr. Michelle Peterson, Interim Dean of the School of Math and Sciences

1. **Dr. Michele Guannel**, Assistant Professor of Biology
2. **Dr. Molly Perry**, Assistant Professor of History and Geography
3. **Dr. Nadia Monroe Mills**, Assistant Professor of Mathematics/Component Lead for Teacher Professional Development (VI-EPSCoR)
4. **Ms. Aimee Sanchez**, Emerging Caribbean Scientists Programs Grants Manager

Moderator: Dr. Karen Brown, Dean of the College of Education



**COLLEGE
HIGHER EDUCATION**



EARLY CAREER SUPPORT

1. **Dr. Karyl Askew**, Senior Research Scientist for CASL
2. **Dr. Verleen McSween**, Assistant Professor of Biology/Component Lead for Mentoring and Research Infrastructure (VI-EPSCoR)
3. **Dr. Lawanda Cummings**, Director of Florida-Caribbean Louis Stoke Regional Center of Excellence

Moderated by Dr. Lawanda Cummings, Director of STEM Education Research (VI-EPSCoR)/ Director of Florida-Caribbean Louis Stoke Regional Center of Excellence



Excellence by
Design

