



Congressman Donald M. Payne, Jr.
Representing New Jersey's 10th District



“STEM Education and Minority Children”

Congressman Donald M. Payne, Jr. (NJ-10)

Stevens Institute of Technology

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It is my pleasure to be here today with you to kick off the Stevens ACES Initiative. Thank you, President Farvardin for inviting me, and thank you, Chairman Davis, for driving the ACES Initiative. The kickoff today is immensely important for New Jersey and for a generation of young people who will benefit from increased access to a STEM education.

The Stevens ACES Initiative addresses one of the most pressing issues in higher-education today – How do we increase the participation and success of underserved and underrepresented minority students in majors and careers that rely on science, technology, engineering, and math?

Right now, fewer than half of all high schools in the United States offer calculus.

Many high schools across the country don't offer physics or chemistry. And the students who don't have access to senior-level science or math classes are disproportionately students of color or low-income students.

This disparity continues through college, where only four percent of engineering majors are Black or African-American, and only eight percent are Hispanic or Latino.

The world around us is undergoing rapid change, and it will continue to evolve. For a century, the United States has led the technological revolution, but we face a STEM crisis that threatens our leadership.

First, there is a growing gap between the jobs that are in high demand and the people who have skills to fill them. Over the next ten years, eighty percent of careers will require a deep understanding of STEM skills. But more than half of students today struggle to meet basic math requirements.

Second, too few low-income women and minorities pursue STEM degrees. These are among the fastest growing demographics in the country, and they are being left behind. The United States has to find paths for low-income women and minorities to enter STEM fields if we want to remain a world leader in technology, infrastructure, energy, health care, and all the other industries we have led over the past century.

Third, the tech industry is severely lacking when it comes to diversity. Women and minorities are underrepresented at all levels throughout Silicon Valley – from programmers to management to the C-suite and boards. At Facebook, only three in every one-hundred employees is Black or African-American. Fewer than one in five technical employees is a woman. The company has no Black or African-American board members. A couple of weeks ago, the Congressional Black Caucus met with Sheryl Sandberg, the COO of Facebook. She promised that Facebook would work on its diversity problem, but the problem will not be resolved overnight.

Facebook is not alone in its underrepresentation of minority voices. Silicon Valley and the tech industry must do more to diversify and ensure the tech-drive economy reaches everyone.

The Stevens ACES Initiative goes right to the heart of the problems I've mentioned. The ACES Initiative will pave the way for minorities and underserved populations to enter the STEM field.

These young people will shape the way science, technology, engineering — and yes, math — affect our daily lives. And they will be positioned to create a future in which technology reflects the strength of America's diverse communities.

The foundational elements of a STEM education benefit all students — not just those who pursue STEM careers.

The ACES Initiative will help young people sharpen problem solving skills that will benefit them in whatever career they pursue.

The ACES Initiative will provide professional development for high school guidance counselors, student trips to research labs, and special programs for high school students to visit the university.

This increased access to higher education will give students and leaders at regional high schools the tools they need to succeed in the twenty-first century economy.

And the ACES Initiative will provide full scholarships for students to attend the Stevens Pre-College Summer Program. This means that underserved students will have the opportunity to explore college life – hopefully inspiring a new generation of young people to go to college.

We live in a technological world. Technology fuels our economy. It drives our social interactions. And it is an indispensable part of humanity's future.

Technology will someday cure cancer. Technology will help us deal with global climate change. Technology will ultimately send explorers deep into space.

These achievements presume a future that is proficient in math, sciences, engineering, and technology. Universities like the Stevens Institute of Technology are training grounds for humanity's pioneers.

And programs like the ACES Initiative will be increasingly important to ensure the greatest minds have access to STEM careers, without regard to their gender, race, or socioeconomic status.

STEM careers are growing faster than nearly every other profession in the United States.

The demand for STEM graduates is high, but the supply of qualified workers is low. And women and minorities are disproportionately less likely than their peers to pursue STEM degrees.

I am happy to see that the Stevens Institute of Technology is taking proactive steps to prepare all children for STEM careers – regardless of zip code, race, gender, or economic background.

I hope the ACES Initiative will serve as a model for universities in New Jersey and nationwide, and I look forward to its many successes.