



**TESTIMONY OF DR. JULIETTE B. BELL BEFORE THE UNITED STATES
HOUSE OF REPRESENTATIVES AGRICULTURE COMMITTEE**

President, University of Maryland Eastern Shore

Washington, D.C.

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**Moving Full STEAM Ahead: Meeting 21st Century Challenges for Innovation in
Science, Technology, Engineering, Agriculture, and Mathematics**

To members of the Agriculture Committee of the U.S. House of Representatives - Good Morning!

My name is Dr. Juliette B. Bell and I am honored to speak before you, not only as president of the University of Maryland Eastern Shore, but also as the former chair of the Council of 1890 Universities, which consists of presidents of the nineteen 1890 Universities, and as former co-chair of the USDA/1890 Taskforce established by the U. S. Secretary of Agriculture.

I am here today to testify in support of H.R. 6020, a bill that establishes funding for Student Scholarships for the 1890 Land-Grant African American Colleges and Universities Act. I ask your support of this bill, which provides much-needed student scholarship funding of \$1,000,000 a year for five years for each of the 19 Historically Black Land- Grant Universities, including the University of Maryland Eastern Shore (UMES).

Congressman Justin Morrill, one of the founders of the Republican Party, authored the Land Grant College Act of 1862, in order that colleges be established for the endowment and support of the education of the “sons of toil;” that they should be educated not only in classical studies and military drill, but also in the mechanical arts, and agriculture, which Morrill described as “the foundation of all present and future prosperity.”

Enacted in the midst of the Civil War, The Morrill Act did not provide for the education of the African-American citizenry, as segregation of races prohibited the admission of African-Americans to many of these land grant colleges. Following the Civil War, in the years of reconstruction, Senator Morrill, continued his advocacy for the “sons of toil,” this time seeking to include those citizens of color who were not provided for under the original Act.

Thus, in 1890, with the enactment of the Second Morrill Act, funds from the sale of public lands were set aside for “the more complete endowment and maintenance” of land grant colleges except that no funds would be distributed to states where there was a “distinction of race or color” in admissions. However, the Act did stipulate that “the establishment and maintenance of such colleges separately for white and colored students” would be considered compliant with the Act provided the State “equitably divided” those funds between the institutions.

Last year, we had the honor of celebrating the 125th anniversary of the signing of the Second Morrill Act, with several activities here in Washington, D.C. including testifying before this august body, the Agriculture Committee of the U.S. House of Representatives. In recognition of the critical mission of 1890 Universities as educators of the nation’s “sons of toil”, Congressman Scott has introduced H.R. 6020, to support our efforts. We salute him and the co-sponsors of HR 6020. For many students, our institutions represent their only access and opportunity to attaining a college education.

The University of Maryland Eastern Shore (UMES) is pleased to be one of the nation’s 1890 Land-Grant Universities. Founded in 1886, UMES is located on the Delmarva Peninsula, east of the Chesapeake Bay and west of the Atlantic Ocean, in the heart of Somerset County, on Maryland’s Eastern Shore. In less than a three hours’ drive from where we sit today, one can tell that “agriculture” is a driving force on “the Shore.” From the time of the first settlements in our State, the economy of the Eastern Shore has traditionally been driven by the land and the waterways that make our region so bucolic. Farmers, oystermen, crabbers, fishermen and poultry growers have not only made livelihoods for their families and employed countless others, but they have helped our region thrive. Further, the Atlantic Ocean, lined by sandy beaches and natural habitats, provide for a booming tourism industry that undergirds the state’s economy. Indeed, one cannot think of Maryland’s iconic foods (Maryland Crab Cake) and places (Annapolis, Baltimore, St. Michael’s and Ocean City), without thinking about the contributions of the many stewards of the land and sea that make our state the land of opportunity.

As a Historically Black College or University (HBCU) with a land-grant mission, much of our work at UMES has been to open doors of opportunity for capable students from diverse backgrounds and prepare them for meaningful careers that enable them to support their families, our state and our nation.

The university's 3,900 students are culturally and geographically diverse. Currently, UMES is one of the most diverse HBCU's in the nation -67% of our students are African American, 13% are white, and 20% are multi- or other- race students. More than three-quarters of our students are Maryland residents, with a significant number from others states and some 30 nations. And, all of these students are being prepared for careers that will move us forward in our efforts to make America greater.

One common denominator that many of our students share is their economic status. We recognize that the 1890 Universities serve a diverse population and that many of our students are economically unprepared to fund their college education. At UMES, more than 50% of our students are the first in their families to go to college and nearly two-thirds are Pell-eligible. Unfortunately, many of these students, while academically succeeding, are forced to drop out of college because they don't have the money to cover the modest tuition that our institutions charge. At the same time, our institutions do not have large endowments and private support that allow us to assist every student who needs it.

The scholarship funds provided by H.R. 6020 will help our students, not only African Americans, but also the many white students that our 1890 Universities proudly serve. These economically disadvantaged students, black and white alike, will benefit from the scholarship funds that will help them fulfill their dreams of a college degree in fields that will help them land good jobs, contribute to the nation's economy, and improve the lives of their families for generations to come.

Your support of the H.R. 6020 is critical to our ability to assist these students and support the economic growth and development of our country. This bill would provide scholarships for students to pursue careers in food and agricultural sciences, including agribusiness; food production; retailing; clothing industries; energy and renewable fuels; and farming marketing. All of these are vital career paths for residents in rural communities like ours on Maryland's Eastern Shore.

Despite the strides that our nation has made in diversifying many industries and professions, minorities are still grossly underrepresented in the Science, Technology, Engineering, Agriculture, and Mathematics– what we call STEAM- disciplines. The 1890 Universities continue to be major producers of minority STEAM graduates in areas including engineering, mathematics and statistic, agriculture, and marine sciences.

A recent report by the White House Office of Science and Technology Policy (OSTP) and the White House Rural Council, in collaboration with Federal agencies and private-sector stakeholders, in announcing new efforts to expand and diversify the U.S. agriculture workforce, brought the issue of the diversity in agriculture into stark reality.

The report, titled *America the Bountiful Initiative to Strengthen U.S. Agricultural Workforce*, stated the following:

Agriculture and its related industries provide nearly 10 percent of U.S. employment, but the number of students graduating with degrees in agricultural fields is not meeting industry demand. Agricultural education needs to attract a diversity of students and keep pace with the increasingly complex nature of agricultural innovation needed to address global challenges. Falling behind in agriculture is a threat to national security and must be addressed as such.

UMES offers more than 30 undergraduate majors including: Agriculture and Agribusiness and offers more than 20 graduate programs including masters and doctoral degree programs in Food and Agricultural Sciences, Food Science and Technology and Marine and Estuarine Sciences, Natural Resource Sciences and Quantitative Fisheries and Resources Economics.

With additional support, UMES can continue to engage our students in ways to enhance our ability to deliver solutions in key areas. For example, funding under H.R. 6020 would allow us to support students to engage with our faculty in expanding the work of four centers of excellence that we launched last year in the following areas:

- Chesapeake Water Quality Center
- Center for Obesity Prevention
- Center for Agribusiness and Economic Development; and
- International Center for Personal Protective Equipment

At UMES, we have translated our historic land-grant mission to support 21st century life and learning. Academic programs such as engineering, cybersecurity, aviation, construction management, and technology, have their roots in the mechanical arts. Further still, programs like hospitality and tourism, child and family development and human ecology owe their genesis to the former domestic sciences, which have long been a staple of the land-grant mission. And even agriculture has had a 21st century transformation in the areas of precision agriculture, renewable energy, sustainability and biomedical and life sciences.

UMES is appreciative of funding from the US Department of Agriculture to support our 1890 land-grant mission. Largely due to this support, the university has been able to expand its research portfolio, which enabled the university to achieve the coveted status as a Carnegie Doctoral Research University in February of this year. The university's research portfolio includes such innovative projects as using beets as a source for jet fuel, and converting chicken waste to fuel and fertilizer. Moreover, the University currently serves as the lead institution in a coalition of six universities nationwide in the operation of the Living Marine Research and Cooperative Science Center (LMRCSC), which

conducts research to preserve the marine and estuarine environment so vital to the health of the Chesapeake Bay and other waterways in the country.

Our scientists have continued to position themselves at the cutting edge of new innovations. For instance, given the importance of food and water security, our scientists are exploring how unmanned Aerial Vehicles (UAVs) can be used to improve the efficiency of water use and application of nutrients to large commodities such as corn with very promising results.

Just over a decade ago we were able to establish a state of the art research facility with federal and state support where critical research on poultry and seafood safety and quality is carried. Our scientists are nationally recognized. Indeed Dr. Parveen one of our Food safety specialists serves on the Secretary of Agriculture's National Advisory Committee on Microbiological Criteria for Foods.

Through our extension funding, we have engaged our local community through numerous community forums and presentations in an effort to educate them about the benefits of agriculture to our community, our state and our nation. And, UMES actively engages youth in order to promote careers in the STEAM disciplines.

I believe that strategic investment in 1890s will lead to a more level playing field that will allow us to be even more competitive and effective. Our graduates have been successful in diversifying the workforce and making meaningful contributions in the federal, state, and business sectors. Certainly, by supporting H.R. 6020 and funding for Student Scholarships for the 1890 Land-Grant African American Colleges and Universities Act, you will be making an investment that will reap dividends for our students and this country.

Strategic investment in 1890 Universities is an investment in the future. Again, thank you for your commitment and continued support of the 1890 Universities and the University of Maryland Eastern Shore.