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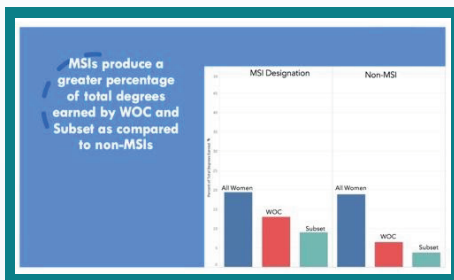Shani B. Daily, PhD, DEEP Designs

FUTURE Act a Solid Investment, HBCUs 2.5x more likely to graduate women of color with computing degrees
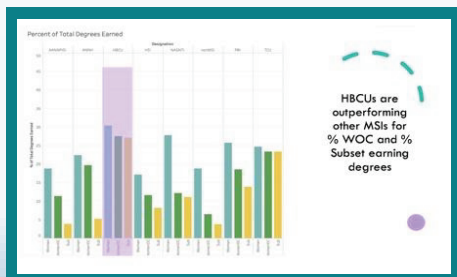
SUMMARY

Computer science jobs are among the most highly compensated and in-demand careers in the United States. In fact, the Bureau of Labor Statistics predicts that computer science jobs will grow by 15% over the next nine years, far outpacing most other fields. However, women earn just 18% of undergraduate computer science degrees and women of color, principally non-Asian women, experience even less representation. Instead of improving, the gender gap in computer science degree completion has widened since 1985. While many colleges continue to grapple with this disparity, a new study examining national trends in bachelor's degree completion among women of color in computing from 2011-2018 finds that Minority Serving Institutions (MSIs) produce a higher percentage of women of color computing graduates than any other type of university, including those with Women's College, Ivy League, or Top 25 ranking designations. Historically Black Colleges and Universities (HBCUs) in particular outperform other MSIs for the percent of women of color earning computer science degrees. These findings bolster the criticality of the FUTURE Act passed in 2019, which provides permanent funding ($255 million) to MSIs. The findings from this study also warrant increased and sustained investment from philanthropy and tech in MSIs, specifically HBCUs. Further, a more nuanced understanding of the strategies these universities employ and environments they create to support women of color pursuing computing degrees, which the authors of this study intend to investigate, may advance broader inclusion in this lucrative and growing field.

STUDY INSIGHTS

▪ A regression analysis of 2011-2018 IPEDS data determined certain characteristics predicted the likelihood of institutions awarding computer science degrees to women of color. Chief among these predictors was an MSI designation experiences in college and career.
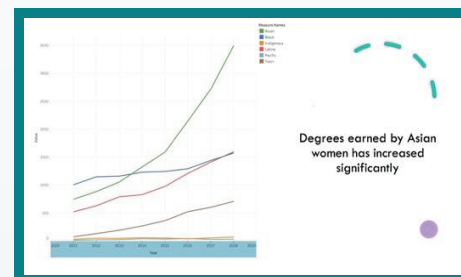

▪ HBCUs are the top produces, by percentage, for computer science degree completion among all women, women of color, and women of color excluding Asian women

▪ Among women of color, Asian women experienced the most growth in computer science degree completion from 2011-2018, more than double and triple the number of degrees earned than Latina and Black women, respectively.

▪ Although computer science degrees earned by Asian women have increased exponentially, a closer look at computer science degree completion shows steady growth for other women of color as well, with the exception of Indigenous and Pacific Islander women, whose growth has remained relatively flat

Although Pacific Islander and Indigenous women earn the fewest degrees in computer science, ANNH and NASNTI designated institutions are more likely to produce computer science degrees to these women than other institutions.

Sources
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