

The Case for Degree Apprenticeships in Tech: An Educational Perspective

What Is the Issue We Seek to Address?

- With an **IT workforce** that's only 25.2 percent female and 17.5 percent Latinx or Black, leaders in tech are eager to diversify their workforce.
- Apprenticeship programs can expand **diversity in tech** because they help learners gain relevant work experience while avoiding or minimizing student debt, thus overcoming common obstacles.
- HBCUs and other minority-serving institutions (MSIs) are producing high-caliber computer science/IT students eager to excel in their next job, but firms need help connecting with them.

Why Registered Apprenticeship?

- Registered apprenticeships are **an effective way for students** to earn money while they learn skills for a rewarding career and an industry-recognized credential and/or a college degree.
- Employers hire the apprentices, pay hourly training wages, mentor apprentices, and offer the context in which apprentices learn their occupations.

Why This Degree Apprenticeship Model?

- These efforts will be a DOL Innovation Pilot because of the innovative way they address diversity and inclusion by helping create a pipeline for talented computer science/information technology majors in HBCUs and other MSIs to enter tech occupations.
- First, this apprenticeship program will end with a computer science/IT bachelor's degree for apprentices. This helps remove multiple barriers for underrepresented minority students to enter tech occupations. Tech employers often seek to hire entry-level software engineers with 4-year degrees and 1–3 years of experience. With a degree and portfolio of work, they are stronger applicants in the face of pervasive biases in the tech industry and are more likely to have career success beyond their apprenticeship.
- Second, the earnings apprentices will make in their apprenticeship program can counter financial pressures that many underrepresented students face. This will let them persist through their programs and complete a degree rather than acquire student debt with no diploma at the end.
- Third, this model is designed to create a consortium of participating HBCUs from the start.
- Fourth, this model is a joint employer and college partnership, meaning that the related technical instruction is based on a rigorous competency-based academic plan vetted by multiple computer science/information technology departments and programs, and the on-the-job training has been vetted by multiple employers. It is a partnership that has produced an extremely high-quality program design and standards.

What Are the School's Responsibilities?

- South Carolina State University (SCSU) will be the school responsible for registering the standards and program development. Other HBCU Consortium schools will play a role in identifying students for

participation in the apprenticeship, recruiting employers to hire apprentices, providing classroom training to students, communicating updates regarding new apprentices or new participating employers to SCSU, participating in events, and reviewing toolkits, resources, and other products developed by Urban or SCSU.

- SCSU will serve as sponsor for the consortium of local HBCUs, with plans to recruit at least 10 students for the first cohort in spring 2022 (across all schools). The apprenticeship program sponsor is a formal designation determined when registering an apprenticeship program. The sponsor has specific duties and responsibilities, including ensuring all apprentices and participating employers have completed written apprenticeship/employer agreements; establishing standards of education and experience required of apprentices; hearing and resolving complaints for apprenticeship agreement violations; arranging evaluations of apprentices' progress; maintaining records of all apprentices; and communicating with the registration agency about apprenticeship enrollment, reinstatement, extension, cancellation, and completion. HBCU members will need to stay in communication with SCSU to ensure updates are known.

What Is the Urban Institute's Role?

- Urban will offer services to SCSU and participating schools in the form of (1) technical assistance to develop key required documents; (2) assistance with program registration in the state in which they are located; and (3) help facilitating employer connections through Urban's existing network of employers and targeted events and outreach.
- Urban will produce a series of products, which together we are calling a "toolkit." The goal of the toolkit is to provide instructions to HBCUs on how to establish sustainable and replicable apprenticeship programs with technology employers utilizing undergraduate, graduate, and recent alumni HBCU students. It will include (1) a playbook describing the model, how it was registered, and a chart or other visualization of the process; (2) three one-pagers each developed for HBCU leaders, students, and employers to promote the model and encourage participation or replication; (3) a case study featuring the early success of the program and the participating schools; and (4) a webinar and press release or blog post to launch the toolkit.
- Urban can connect this effort with key tech employers that are already working with Urban on the AEMF award. We anticipate this effort would result in creating a new pipeline of people of color to enter high-earning and in-demand technology careers like software development and cybersecurity.

What Are the Benefits?

- The Department of Labor, through Urban, provides schools generous incentive payments of at least \$6,200 per apprentice through June 2022 to offset initial costs.
- With a program set up for continued success after June 2022, your institution can be a leader by serving as a model to other HBCUs that hope to develop their own programs.
- The program will benefit students and employers alike. On completion, apprentices earn an average of approximately **\$60,000 per year** and hold a certificate of completion that improves employability. Employers receive a **1:1.47 average return on investment**, improved **company diversity**, and a skilled employee **who is more likely to remain with the company**.