URBAN INSTITUTE

Expanding Diversity, Equity, and Inclusion in Tech Apprenticeships

#LiveAtUrban

Housekeeping

- Event is being recorded and the recording will be posted online afterward.

- The slides and speaker biographies are available online.

- All participants are muted.

- Type your **questions** or **comments** into the Q&A box at any time.

#LiveAtUrban

URBAN·INSTITUTE

URBAN INSTITUTE

Expanding Diversity, Equity, and Inclusion in Tech Apprenticeships

#LiveAtUrban

Photo by NESA by Makers on Unsplash

Expanding Diversity, Equity, and Inclusion in Tech Apprenticeships

December 15, 2020
Apprenticeship Expansion and Modernization Fund (AEMF) Project

URBAN INSTITUTE · ELEVATE · THE · DEBATE

Opening Remarks

Diana Elliott, *Principal Research Associate at Urban Institute*

Director, AEMF Project

Daniel Kuehn, *Senior Research Associate at Urban Institute*

Moderator

What is Apprenticeship?

- Apprenticeships allow people to get paid on-the-job training along with classroom learning to earn credentials and certifications.

- Apprentices generally have structured pay increases associated with the demonstration of competencies and greater responsibility.

- Apprentices are typically a full-time employee of the employer.

- Apprentices are mentored on the job to employers' expectations.

- Apprenticeships minimize burdensome student loan debt.

- Apprenticeships can be for incumbent workers or new employees.

Urban's Apprenticeship Expansion and Modernization Fund (AEMF) Project

- Engage with employers of tech jobs across sectors (IT, Finance, Adv. Manufacturing) about registered apprenticeship

- Provide free technical assistance and support to develop/register

- Provide monetary offsets to incentivize new and existing programs

- Spark innovation, including an "employability skills" application

- Sign over 1700 new apprentices by July 2022 in tech occupations and work with at least 30 employers and 20 new programs

- Build partnerships with employers, intermediaries, and credentialing organizations across the US

Why did we focus this project on tech?

Need for new talent in tech is high and rewards are tremendous

- Large, growing, diverse pool of jobs across sectors

- Need for employees in the near- and long-term

- Highly paid jobs with growth trajectories

  - [BLS](#) projects IT occupations will grow 12 percent (2018 to 2028); will add 546,200 jobs in that decade

  - Median annual wage (May 2018): $86,320 (v $38,640 overall)

Why did we focus this project on tech?

Computer science classes lack diversity and do not fill the need

- [Demand for seats in CS classes outstrips supply](#)

- Only [45% of high schools teach CS](#); underrepresented students are less likely to attend schools teaching it

- Nearly [10x the number of open CS jobs](#) as college graduates yearly

- Tech sector misses out on innovation without diverse candidates

Tech occupations are apprenticeable

- Growing dissatisfaction that [CS degree holders' training is not immediately relevant](#) to production on the job

- On-the-job learning needed for CS degree holders, too

- Coursera, Khan Academy, Code Academy offer free entry points available to all to learn coding; produce impressive results

- Growing recognition that a 4-year CS degree isn't needed for many IT roles; opens door to hire for potential rather than a credential and open points of access to candidates from other backgrounds

Tech occupations are apprenticeable

- Many successful examples of large and small employers registering apprenticeships in a variety of IT roles (data scientist, cyber security support technician, IT generalist, digital marketing specialist, software engineers, among others)

- Not just IT employers – tech occupation apprenticeships span healthcare, adv. manufacturing, public sector (tech is everywhere)

Diversity, equity, and inclusion in tech apprentices

Efforts to make apprenticeship equitable have a long history.

- Development of equal employment law in the 1960s and 1970s

- Women in Apprenticeships in Non-Traditional Occupations (WANTO) grants starting in the 1990s

- 2016 EEO regulations prohibiting discrimination on the basis of disability, age, sexual orientation, and genetic information.

Tech apprenticeships reproduce the disparities in the tech industry.

- Only about a quarter of tech apprentices are women, comparable to tech jobs generally

- Accessing apprenticeship is even more difficult for women of color

Panel today

- **Nicole Brown**, Senior Principal IT Security Consultant, Carter Enterprise Solutions

- **Sierra Butcher**, Cyber Security Analyst, Fiserv

- **Girish Seshagiri**, Immediate Past Cochair, National Initiative for Cybersecurity Education Apprenticeship Working Group

- **Heather Terenzio**, Chief Executive Officer and Founder, Techtonic

- **Michael Ward Jr.,** President and Chief Executive Officer, Austin Urban Technology Movement

URBAN INSTITUTE

Expanding Diversity, Equity, and Inclusion in Tech Apprenticeships

#LiveAtUrban