

POLICY BRIEF: PROMOTING REGISTERED APPRENTICESHIP OPPORTUNITIES IN TECHNOLOGY

Technology (“tech”) occupations in Allegheny County are a vital driver for the local economy, accounting for more than 25,000 jobs¹. In a tight labor market, characterized by a historically low unemployment rate and a greater number of open jobs compared to unemployed individuals, employers in Allegheny County continue to seek and hire tech talent. Though the gap between the number of online job postings and unemployed individuals has been narrowing since a 5-year peak in 2022, there were still nearly 16,000 unique online postings for tech occupations in 2023 in Allegheny County². Notwithstanding the demand for talent, diversity challenges in tech persist. Women account for only 26% of the tech workforce in Allegheny County and only 5.9% of tech workers are Black³. Women and Black individuals, however, make up 51.6% and 11.7% of Allegheny County’s working-age population, respectively⁴. Tech occupations suffer from an opportunity gap, where workers need skills beyond a high school diploma but not necessarily a four year degree and the networks to connect them to job opportunities.

Registered Apprenticeship Programs (RAPs) present an opportunity for diversifying the pipeline of talent for tech jobs. RAPs are industry-driven, earn-while-you-learn training models that enable individuals to obtain paid work experience, classroom instruction, wage increases, and nationally recognized credentials. Additionally, RAPs are approved and validated by the U.S. Department of Labor or a State Apprenticeship Agency⁵. The number of apprenticeships in technology has been growing nationally. In 2022, there were more than 5,000 apprentices in Information Technology (IT) in the United States, an increase from 1,500 apprentices in 2018⁶.

Locally, Partner4Work has collaborated with the Pittsburgh Technology Council, Fortyx80, and other tech partners to bring Apprenti PGH to the Pittsburgh region. Apprenti PGH is a registered apprenticeship program in Pennsylvania that expands access to tech careers to underrepresented groups, including women and people of color. This includes eliminating cost barriers to participation by

Core Components of Registered Apprenticeships



¹ Lightcast, 2024.1 // ² Ibid. // ³ Ibid. // ⁴ US Census ACS 2022 1-Year Estimates

⁵ The PA Apprenticeship and Training Council (PATC), established by the *Apprenticeship and Training Act of 1961*, is the approving authority for proposed RAPS in Pennsylvania.

⁶ US Department of Labor. “Information Technology.” Accessed April 22, 2024.

<https://www.apprenticeship.gov/apprenticeship-industries/information-technology>.

providing tuition, wages during classroom instruction (\$15/hour), and wage increases during on-the-job training (\$20.19 to \$28.00/hour). Participants who complete their apprenticeship earn an entry-level wage of \$33.65/hour as a journeyworker. Apprenti further addresses the issue of lack of diversity in tech by implementing practices meant to reduce bias in hiring, such as blind hiring, and implementing practices to aid retention, such as mentoring and peer group support.

The majority (55%) of Apprenti PGH apprentices are people of color and, more specifically, 40% of apprentices are Black. Nearly half (47.5%) of Apprenti PGH apprentices are women. Data from the Apprenti model nationally has shown that 93% of apprentices graduate from the program and 88% of apprentices are retained with their employer post-apprenticeship⁷.

The following recommendations offer ways in which policymakers can further support the growth of registered apprenticeships, like Apprenti PGH, as a pathway to tech jobs and to other industries not typically associated with apprenticeships:

Federal:

- Federal investment in workforce development is crucial to bridging the skills gap between job seekers and employers seeking talent. The Workforce Innovation and Opportunity Act (WIOA) has consistently been underfunded, well-below authorized levels. WIOA makes funding available for job training and prioritizes investments in registered apprenticeships. Congress should fully fund WIOA at authorized levels to ensure the country's workforce development system has the resources needed to respond to employer and job seeker needs in an unprecedentedly tight labor market. ApprentiPGH works so well in part because students are paid during their training, which enables them to more quickly gain the skills they need and make the decision to invest time into training. Additional WIOA funding could help scale this important work.

Pennsylvania:

- Pennsylvania should continue to invest in registered apprenticeship programs as a part of the Commonwealth Budget. This should include dedicated funding for diversifying the apprenticeship ranks and easing barriers to apprenticeship participation within nontraditional apprenticeship sectors.
- At the federal level, competency-based occupational frameworks have been promoted for registered apprenticeships in technology⁸. These frameworks differ from time-based models by emphasizing enhanced skills or abilities over seat time. To support the development of registered apprenticeships in tech and competency-based hiring in Pennsylvania, the PA Apprenticeship and Training Council (ATC) should more broadly consider approval of competency-based apprenticeship models in addition to its current preference for seat time-based models.
- Currently, apprenticeship programs in Pennsylvania are registered at a much slower rate compared to other states⁹. The PA Apprenticeship & Training Office (ATO) and ATC should conduct a review of the state apprenticeship registration process to identify opportunities to ease cumbersome and lengthy paperwork and reporting requirements that create barriers to employer participation, particularly for those in nontraditional apprenticeship sectors such as tech or healthcare.
- Pennsylvania's 2024-2028 WIOA Combined State Plan sets goals to expand registered apprenticeship and pre-apprenticeship opportunities for youth and young adults. In line with these goals, the Commonwealth should make dedicated, flexible funding available to support registered apprenticeship and pre-apprenticeship opportunities for youth. This strategy should limit bureaucratic requirements and promote models led by local workforce development boards (LWDBs) which convene school districts, Career and Tech Centers, employers, post-secondary institutions, and other relevant stakeholders. Opportunities include pre-RAP programs that prepare high school students for entry into RAPs following graduation, and RAP programs that provide both classroom instruction and on-the-job learning components to high school students prior to graduation.

⁷ "Apprenti Impact." Accessed April 22, 2024. <https://apprenticareers.org/hire/impact/>.

⁸ US Department of Labor. "Information Technology." Accessed April 22, 2024. <https://www.apprenticeship.gov/apprenticeship-industries/information-technology>.

⁹ Pittsburgh Post-Gazette. "Zach Boren: Why Doesn't Pa. Have the Apprenticeship Programs the Governor Wants?" Accessed April 22, 2024. <https://www.post-gazette.com/opinion/guest-columns/2023/04/20/shapiro-unemployment-retraining/stories/202304200013>