

Skills, Support, and Success: Women in Cybersecurity Registered Apprenticeships

Registered apprenticeship (RA) programs are proven training models used to recruit, train, and retain individuals in various industries. Using this model, employers can develop a workforce that is trained in industry-driven, high-growth careers by providing paid, on-the-job training (OJT) and relevant work experiences that lead to credentials and certifications. Supported by U.S. Department of Labor (DOL) partnerships and investments, the number of women in apprenticeships has more than tripled from [fiscal year 2014 to 2022](#).

26%



In 2023, women under the age of 30 represented only 26% of the cybersecurity workforce.

However, women of all ages have historically been underrepresented in RAs due to apprenticeship opportunities primarily being offered in male-dominated industries. In cybersecurity, [women under the age of 30 only represented 26% of the workforce in 2023](#). To promote diversity and inclusivity in cybersecurity and RAs, it is crucial to actively recruit women from

diverse backgrounds into cybersecurity RAs through education, targeted marketing, and partnerships with women-focused diversity, equity, and inclusion (DEI) efforts.

Pre-apprenticeship and RA programs have an opportunity to provide women and girls with recognition of their strengths and skills that apply to a career in cybersecurity. This tip sheet provides practical strategies to recruit, retain, and advance female workers in cybersecurity through RAs.

Considerations to Recruit, Retain, and Advance Women in Cybersecurity RAs

There are many considerations and strategies that organizations can implement to promote the success and inclusion of women in pre-apprenticeship and RA programs.

Target marketing and advertising efforts to women. Marketing and advertising materials should emphasize the critical role that diversity plays in enhancing cybersecurity effectiveness and showcase the unique perspectives, creativity, and problem-solving skills that women bring to the field.



Consider featuring successful female cybersecurity professionals as role models and mentors, as well as outlining the benefits cybersecurity RAs can offer to women.

To reach more women, programs should consider:

- [Using social media](#) to share success stories, testimonials, and day-in-the-life experiences of apprentices that are women.
- [Attending women-focused career fairs and events](#) to engage directly with potential candidates.

Common challenges to increasing the representation of women in RAs and cybersecurity:

- Lack of visible female role models
- Lack of access to security education and training
- Lack of access to reliable and consistent childcare
- Lack of pay during the classroom portion of an apprenticeship program
- Incomplete information regarding the career track
- Outdated social norms in traditionally male-dominated occupations



- Collaborating with organizations that focus on empowering women in the cybersecurity workforce, such as [Girl Security](#).
- [Offering partnerships](#), sponsorships, or scholarships to women's organizations to promote apprenticeship opportunities.
- Providing [presentations or workshops](#) at events organized by women's groups.
- Organizing [cybersecurity competitions and challenges](#) that target women on campuses or in community groups.



Establish mentorship programs that connect women apprentices with experienced leaders, mentors, and role models who are women. This effort will offer a supportive network where women can support each other as they share their experiences, successes, and challenges.



Provide supportive services to assist in removing financial barriers to women entering and completing cybersecurity apprenticeship programs. There is evidence that women participate and succeed in RA programs [at higher rates when provided supportive services](#) such as career-readiness coaching, childcare, and transportation. Supportive services might include scholarships or grants for equipment, paid classroom training, and flexibility for women on parental leave, such as remote learning options. Using a case management model to assess women's barriers can help to identify and address challenges that may arise.



Implement strategies to help women increase their self-confidence in cybersecurity. [A lack of self-confidence is a key barrier](#) to women deciding to enter and/or advance in cybersecurity. OJT offered through RAs has been shown to [foster personal growth and self-confidence](#) among women apprentices. [Providing mentoring and feedback](#) offers apprentices the opportunity to receive positive and constructive insights about their performance and create a plan to improve and grow their skills.



Highlight the Equal Employment Opportunity Regulation for RAs. Established by DOL, [the Equal Employment Opportunity Regulation](#) for RAs helps employers reduce barriers for women and increase their participation in and completion of RAs by articulating anti-discrimination policies and antiharassment practices. These policies and practices ensure a safe working environment is established and maintained.

Additional Resources

[National Initiative for Cybersecurity Careers and Studies \(NICCS\)](#) is a premier online resource for cybersecurity training, education, and career information.

[Women in Cybersecurity](#) is a cybersecurity organization representing an alliance of government, academia, and industry working to move the needle in women's underrepresentation in cyber.

[Cyversity's](#) mission is to achieve the consistent representation of women, underrepresented communities, and all veterans in the cybersecurity industry through programs designed to diversify, educate, and empower.

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