

Applied Computer Security Associates (ACSA) is a non-profit association of computer security professionals who have a common goal of improving the understanding, theory, and practice of computer security. In response to the shortage of cybersecurity professionals, ACSA, through the Scholarships for Women Studying Information Security (SWSIS) program, has been seeking to increase the cybersecurity professional numbers by increasing the number of women in cybersecurity since 2011. Women are dramatically underrepresented in the security field, with most estimates between 5% - 11%. Other professions with similar underrepresentation of women include aircraft pilots and flight engineers, computer network architects, and barbers. SWSIS seeks to increase the fraction of women in the field by providing financial support. We support women in their third and fourth year of undergraduate studies, and in Masters Programs. We believe this is the point where they can be influenced to pursue a career in security fields – any earlier, and they don't know that they might be interested; later, and they've already committed, so we cannot influence them.

SWSIS cannot solve the problem of underrepresentation on our own, but we are creating an impact, and at a nominal cost. SWSIS is the largest program for scholarships for women in cybersecurity. The SWSIS program has supported 49 women over the past six years in receiving undergraduate and master's degrees, with a total expenditure of \$300,000. Applicants must be accepted at or enrolled in a US campus of a US university. They must be US citizens or permanent residents.

For the 2017-18 academic year, we received 82 applications, of whom we have sufficient funds to provide partial support for 14 students. Additional funding from industry and government would increase the effect on the cybersecurity professionals' pipeline. Our past recipients have told us that SWSIS has made a difference, not only by reducing their debt levels, but by inspiring them to pursue a career in the field, and by providing them with role models and access to experts. In addition, the funds have had direct impact: one Scholar noted that funds enabled her to stay in school rather than drop out to support her child; another reported that as the first person in her extended family to attend college, the recognition gave her family incentive to assist her; another reported that it enabled her to graduate a semester earlier.

SWSIS Scholars, as we call our winners, apply from across the United States, and are selected by a team of academic scholars from major universities, on the basis of academic achievement, demonstrated interest in the field, work experience, references, and a personal statement. Scholars receive an average of \$5000 per year towards tuition and fees at their university. About 2/3 of students receive funding for a single year, while 1/3 receive an automatic renewal for a second year if they are still in school. Many of our recipients have attended ACSA events, where they have built ties to other SWSIS recipients, and to professionals in the field. Employees of donor companies are invited to participate as mentors for scholarship winners, providing additional opportunities for professional networking, in both directions.

SWSIS seeks diversity among our Scholars, including geographical, ethnic/racial, and school type. 25% of our scholars are African American or Hispanic. Our Scholars attend famous universities like University of California Berkeley and Carnegie Mellon University, as well as less well known schools like Ferris State University (Minnesota) and Dakota State University (South Dakota). SWSIS Scholars are selected by a

team of faculty members from leading universities, organized by the Computing Research Alliance Committee on Women (CRA-W), and a group of top cybersecurity experts from ACSA.

Information about our scholarship program, including biographies of our past winners, is at www.swsis.org