Women as ‘game changers’ in cybersecurity

By Amanda Fattner, Editor, United States Cybersecurity Magazine

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go to any cybersecurity convention or tech conference and it’s pretty obvious: cybersecurity is a male-dominated industry. On all levels of the profession but especially at the top, men far outnumber women—which can lead to fewer women considering cybersecurity as a viable career choice. The gender gap is only widening: according to a report by cybersecurity professional certification body (ISC)², only 10 percent of cybersecurity professionals are female, down from 11 percent in 2013.

Fortunately, Maryland’s flourishing cybersecurity climate offers many opportunities for female leadership in the field. These leaders include Stacey Smith, Executive Director of the Cybersecurity Association of Maryland, Inc. (CAMI); Tami Howie, Executive Director of the Chesapeake Regional Tech Council; Ellen Hemmerly, Executive Director of bwtech@UMBC Cyber Incubator; LaToya Staten, Cyber Program Manager for the Maryland Department of Commerce; Karen Austin, Publisher of the United States Cybersecurity Magazine; Maureen Thomas, Executive Director of GovConnects; and Jacky Kimmel, CEO of InfoTek Corporation.

Karen Austin believes that a lack of guidance may contribute to women’s reluctance to choose cybersecurity as a profession. “When women do not have a vision of other women who have walked down the path they are thinking of embarking on...they may choose not to move forward in a career that they have passion for,” said Austin. “We need more female mentors and leaders to pave the way in this industry for other women to follow.”

Women also face challenges at the onset of their professional lives that may make pursuing a career in cybersecurity seem daunting. “I think it is always more difficult for women to break into an industry that has been male-dominated for many years,” Ellen Hemmerly said. “Given the demand for cybersecurity professionals (which exceeds the supply), it is critical to increase the numbers of women (and other minorities) going into the field.”

“Erasing this gender gap is crucial,” Tami Howie said, “especially considering the overall cybersecurity workforce shortage. Different opinions, when brought together, often drive our country’s economy, I believe it is important to ensure that we have the best and brightest—and most diverse—workforce working on those solutions.”

LaToya Staten agreed, positing that “most women are logical and big-picture-focused in applying solutions... Realistically speaking, tech companies should jump at the opportunity to include different mindsets when solving problems.”

Howie points to the ever-growing need for cybersecurity professionals as a “call to arms and opportunity for women interested in starting out in cybersecurity.” But how can we attract women to a profession that many of them may never have considered?

Maureen Thomas believes that cybersecurity mentorship should start early, with “internships and getting into classrooms to offer hands-on interactive experiences in middle school, so students [can] pursue...STEM-related courses as they enter high school and college.” Austin suggested a policy of “schools budgeting for students to attend women-centric conferences, [allowing students to see] women leaders speaking at those conferences.”

Corporations can follow up with these efforts by sponsoring female mentorship programs. Jacky Kimmel has seen firsthand that efforts at boosting female interest in STEM fields are effective. “We have had a fantastic shift in our schools where groups are encouraging girls to pursue science- and math-based fields. My oldest daughter is a freshman in college pursuing a degree in computer engineering. She decided she wanted to pursue this around the age of 13. I cannot be more proud.”

What is it like for a woman currently studying cybersecurity and looking to enter the workforce soon? Sarah Purdum is a leader in the making who is currently pursuing her Master’s degree in cybersecurity at the University of Maryland, Baltimore County (UMBC). Like many women in cybersecurity, Purdum did not initially begin her course of study in that field. However, internships with the Department of Homeland Security and the Cyber Division of the Maryland Department of Business and Economic Development (now the Department of Commerce) got Purdum hooked. This opportunity gave her access to male and female mentors, as well as a closer look at the Maryland cybersecurity field: “Working with Stacey Smith, LaToya Staten, and Jeffrey Wells gave me my first real glance at the Maryland cybersecurity community and how the State works to bring industry, academia, and government together to keep the ecosystem flowing,” Purdum said. While still at the outset of her cybersecurity career, Purdum has learned that being a woman in tech has both its challenges and its opportunities. “I can see (being a woman in cybersecurity) as a hole or a hurdle, and hurdles are more fun to jump over,” Purdum said.

For many of these female cybersecurity leaders, that kind of confidence and can-do attitude are of paramount importance. Staten urges women who are interested in starting a cybersecurity career to “Be a game changer...Join affinity groups, attend industry-related events, and be visible. Command a presence and build your brand as a well-rounded problem solver.”

Jacky Kimmel agrees, and also advises cultivating self-knowledge. “Know your niche and exploit it,” Kimmel said. “Meet everyone you can and don’t just speak but learn to listen. Listen for that problem which speaks to your niche, solve the problem, and then assist the person who had the problem with seeing how they need you.”

Other leaders stress the importance of finding community with like-minded female professionals. “Seek out women who are leaders in this industry,” Austin advised. “Ask to meet with us. Talk to us. We will encourage you and let you know that together we can!”

CAMI’s online Maryland cybersecurity directory, located at www.MDcyber.com, is committed to increasing the visibility of women-owned cybersecurity companies. Users of the resource can index the companies in CAMI’s directory by a wide variety of categories, including whether or not they are owned by women. “There are currently 24 women-owned companies in our online Directory, and my guess is that many more are women-owned but may not have identified themselves as such,” Stacey Smith said. This feature is an important way of highlighting companies headed by women, as “many government agencies and commercial buyers have formal and informal goals of doing business with women-owned companies,” Smith explained. “We hope that CAMI’s Directory facilitates this happening.”