



# **Cyber Security Job market Analysis: Mapping between demand and supply in the industry**

**CREU 2016-2017 final report:**

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## **I. Abstract**

Today cyber security is the world's top Headlines. Our previous president Barack Obama stated in his speech during his stated in the Union address that “America must face rapidly growing threat from cyber-attacks” (International Business Times, Feb 13, 2013).Robert Herjavec,

founder and CEO at Herjavec Group, a Managed Security Services Provider with offices globally, says, "Unfortunately the pipeline of security talent isn't where it needs to be to help curb the cybercrime epidemic. Until we can rectify the quality of education and training that our new cyber experts receive, we will continue to be outpaced by the Black Hats." Although, Internet has provided powerful tools for education, it also has created risks and raised some improper and unsafe behavior inside and outside of the classroom (Butler, 2010). More than 209,000 cyber security jobs in the U.S. are unfilled. Almost 80 percent of computer users are becoming victims of fraud affected by some type of security threat due to unawareness about security risks associated with Internet (Adele , Indrajit, Mark, Malgorzata, & Zinta, 2012). The Federal Trade Commission estimates that the identities of more than 10 million people are stolen each year. Cyber criminals use social engineering attacks to steal Social Security numbers, which can be used to obtain credit cards and even buy houses. Our main goal in our research was to determine the obvious, how can we supply the decrement of cybercrime and how can we improve demand in spreading the knowledge of Hacking and how it affects the human race.

## **II. Method**

Cybersecurity jobs are in demand and growing across the economy, the Professional Services, Finance, and Manufacturing/Defense sectors have the highest demand for cybersecurity jobs In the cyber security industry 35% of cyber security jobs requires certification as for IT jobs requires only 23 %. According to PwC's 2015 State of US Cybercrime Survey, a record 79% of survey respondents said they detected a security incident in the past 12 months. Many incidents go undetected, however, so the real tally is probably much higher. As you can see the data shows that not only people have hacking problems but

companies do as well. The supply and demand of cyber awareness within the school system is a high demand. Our nation's dependence on cyber is evident all around us, from smart phones and online banking to electronic health records, and social networking. By cyber security being one of the most talked about fields in the world it lacks the edge of spreading the knowledge of its importance. It's a well-known fact that as school systems evolve, more and more technology is finding its way into classrooms. If we're going to flood our classrooms with technology to help kids learn, we also need to teach them proper safeguards, especially since a lot of schools are giving students devices as a part of their enrollment. Schools must understand that students, and staff are their best defense against cyber threats. Cyber security is not an age-specific issue. We all need to stay on top of the many threats we face in everyday internet communications.

### **III. Results**

Students need to be trained on how to respond to social engineering and phishing attacks. Many schools tend to forget about nontechnical measures to ensure security of their assets. Technical measures alone are not enough to ensure security of student records. That's why it's up to us to make sure we spread the word about cyber crime within different school systems. If we invest the time and the money in bettering our future let's do it for the youth so they won't be vulnerable toward cyber crime (hackers). We also decided to do a presentation powerpoint to our freshman class to see how many were aware of cyber crime and more than half of the class has been a victim to hackers before. I also asked them what steps they took next they told me they shutdown their computers and threw them away, some said they had to take it to Best Buy to get it fixed. The next generation is our future we have to incorporate different lectures and ideas that will enhance the knowledge in cyber security.

### **III. Web Links**

**<https://evollution.com/opinions/cybersecurity-awareness-training-9010-rule/>**

**<http://burning-glass.com/research/cybersecurity/>**

**<http://www.csoonline.com/article/3120998/techology-business/zero-percent-cybersecurity-unemployment-1-million-jobs-unfilled.html>**