



The Action Plan for Cyber Diversity!

>whoami?

- > Lifelong learner
- > Husband
- > Dad
- > Information Security Professional
- > Cyber Education Board Member

According to the National Security Agency (NSA), “entry level” for many cybersecurity positions means:

- Bachelor's degree plus 3 years of relevant experience
- Master's degree plus 1 year of relevant experience
- Doctoral degree and no experience
- Associate degree plus 5 years of in-depth experience clearly related to the position



Our Cyber Talent Pipeline has some obstructions

- Junior Pen Tester
- Junior Security Analyst
- Junior Network Technician
- Junior IT Auditor



What do I mean when I say
“Diversity”?

Diversity : composed of varied elements

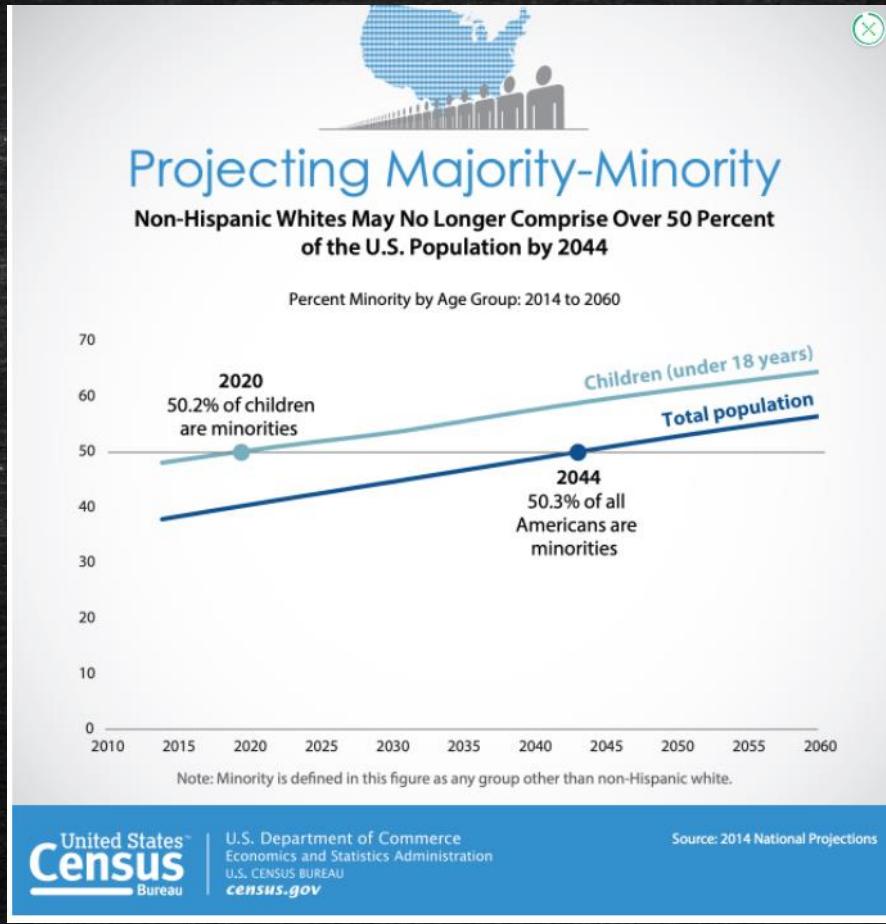


※画像はイメージです。

※画像は別売りの「超合金 トイ・ストーリー 超合体 ウッティ ロボ・シェリフスター」と
組み合わせたものです。

※The picture is for illustrative purposes only.

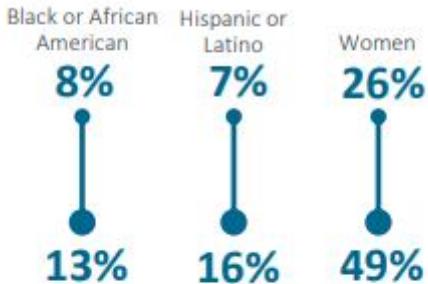
The millennial and Gen Z generations are the most diverse in history: only 56% of the 87 million millennials in the country are white, as compared to 72% of the 76 million members of the baby boomer generation. ([CNN Money](#))



U.S. Diversity is reaching critical mass. This is Happening!
<https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf>

TECH WORKFORCE CHARACTERISTICS²

U.S. tech occupation representation



vs. representation across all U.S. occupations

EXAMPLES OF TECH JOB REPRESENTATION VS. ALL JOBS IN STATE REPRESENTATION²

BLACK OR AFRICAN AMERICAN REPRESENTATION

	Tech Jobs	All Jobs
District of Columbia	29%	34%
Mississippi	25%	38%
Georgia	23%	32%
Maryland	20%	27%

CompTIA Cyberstates 2021



Why Diversity?

- Public Image
- Drive innovation
- Increase profitability
- Be more secure

What does this have to do with
~~haxors~~
~~h4xors~~
~~haxx0rs~~
hackers?

ACTION PLANS

If you are entry-level/aspiring cyber-professional

- Network on social media/Ask questions.
 - LinkedIn
 - Discord
 - Twitter
- Research security career paths and make a study plan.
- Attend MeetUps, Conferences, Webinars.
- Apply for targeted jobs.

If you are a parent

- Attend a BSides with them (Virtually or locally).
 - <http://www.securitybsides.com/w/page/12194156/FrontPage>
- Invest in a Raspberry Pi and start a cyber Pi project.
 - <https://www.cyberpiprojects.com/>
- Join a Makerspace as a family.
- Find student groups.
- Share career possibilities.
 - <https://www.comptia.org/content/it-careers-path-roadmap>
- Deploy and secure Internet of Things devices in your home
 - Smart bulbs, video doorbells, smart speakers, thermostats, etc.
- Start a project in the cloud.
 - <https://www.upgrad.com/blog/aws-projects-ideas/>



If you are an educator

- Help students to align with the NICE Workforce Framework
 - <https://niccs.cisa.gov/workforce-development/cyber-security-workforce-framework>
- Invite STEM professionals to speak/workshop
- Partner with existing organizations
 - <https://cin.comptia.org/>
 - <https://www.raspberrypi.org/teach/>
 - <https://teachcomputing.org/>
 - <https://isaaccomputerscience.org/>
 - <https://codeclub.org/en/start-a-code-club>
 - This is for children aged 9-13 and doesn't require that you have coding knowledge.



If you are an medium/large employer

- Create true entry-level opportunities.
- Cross train help desk employees with the system administrators, network administrators and information security professionals.
- Understand that tech skills can be taught and look for the intangibles that are indicators of potential success when interviewing.



If you own a small business/nonprofit

- Protect your business with best practices and consider the techy people in your life
- <https://www.itondemand.com/2021/02/11/best-security-practices-small-business/>

If you know a student

- Direct them to curated resources
 - <https://freetraining.dfirdiva.com/free-training-for-kids>
 - <https://www.raspberrypi.org/>
- Encourage them to participate in a Capture The Flag (CTF) competition
 - <https://ctf101.org/>
 - <https://www.picoctf.org/>

If you just want to help

- Volunteer at a conference.
- Review a resume.
- Answer questions.
- Support existing efforts.
- Remember what it was like to get started.
- Share your journey/skills.



U.S. has almost 500,000 job openings in cybersecurity

([CBS News](#))

In a study entitled “Tech leavers” by the Kapor Center for Social Impact...found that 40% of Black, Hispanic and Native American men left their jobs due to unfairness and racism in the workplace.

Kapor Center for Social Impact, Tech leavers: <http://www.kaporcenter.org/tech-leavers/>

How can we make it better?

- Mentoring
- Build inclusive culture
- Professional Development

What if we collaborated?

- Technology Innovation Incubators
- Cross-Industry Partnerships
- Cyber-Talent Pipelines

What If we could create true entry level cyber positions?

- Apprenticeship
- Scalable
- Mentoring



What If we could start STEAM/STEM
with younger students?

-
- Junior High
 - Elementary
 - Younger?

Letters to a n00b

- Seek to go from knowledge to understanding
- Get qualified and/or certified.
- Invest in relationships and meet people in the industry.
- Ask questions and explore trends.

In summary

- There are many diverse candidates that can succeed and flourish in this field.
- Diverse companies are stronger.
- We all benefit.

KEITH CHAPMAN



I am here to help

-
- me@keithrchapman.com
 - <https://www.linkedin.com/in/keithrchapman>
 - <https://www.github.com/s1lv3rl1on>



LOCATION: BIC VILLAGE