

# Please Note..

This webinar and the engagement tools will be recorded.

An archive will be available on the [event website](#).

# Developing Cybersecurity Talent Through Alternative Routes

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October 16, 2024



## Cybersecurity Career Events

Friday, Oct. 18:

- NICE Cybersecurity Career Ambassador Community of Interest (In-Person)

**Activities all week long:**

- Cybersecurity Careers Capture the Flag Competition
- Space Grand Challenge 2024 Sandbox Series
- Open Source INTelligence (OSINT) Challenge
- Security Awareness Public Service Announcement (PSA) Contest

October 14-19, 2024

[nist.gov/nice/ccw](https://nist.gov/nice/ccw)



Marissa Ellis

*Director of Education*

Walmart



Layla O'Kane

Director, Data Analytic Solutions

Opportunity@Work



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*Cybersecurity Consultant*

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# Data-Driven Strategies to Identify and Engage Cyber Talent: The Case for STARs



Opportunity  
@Work

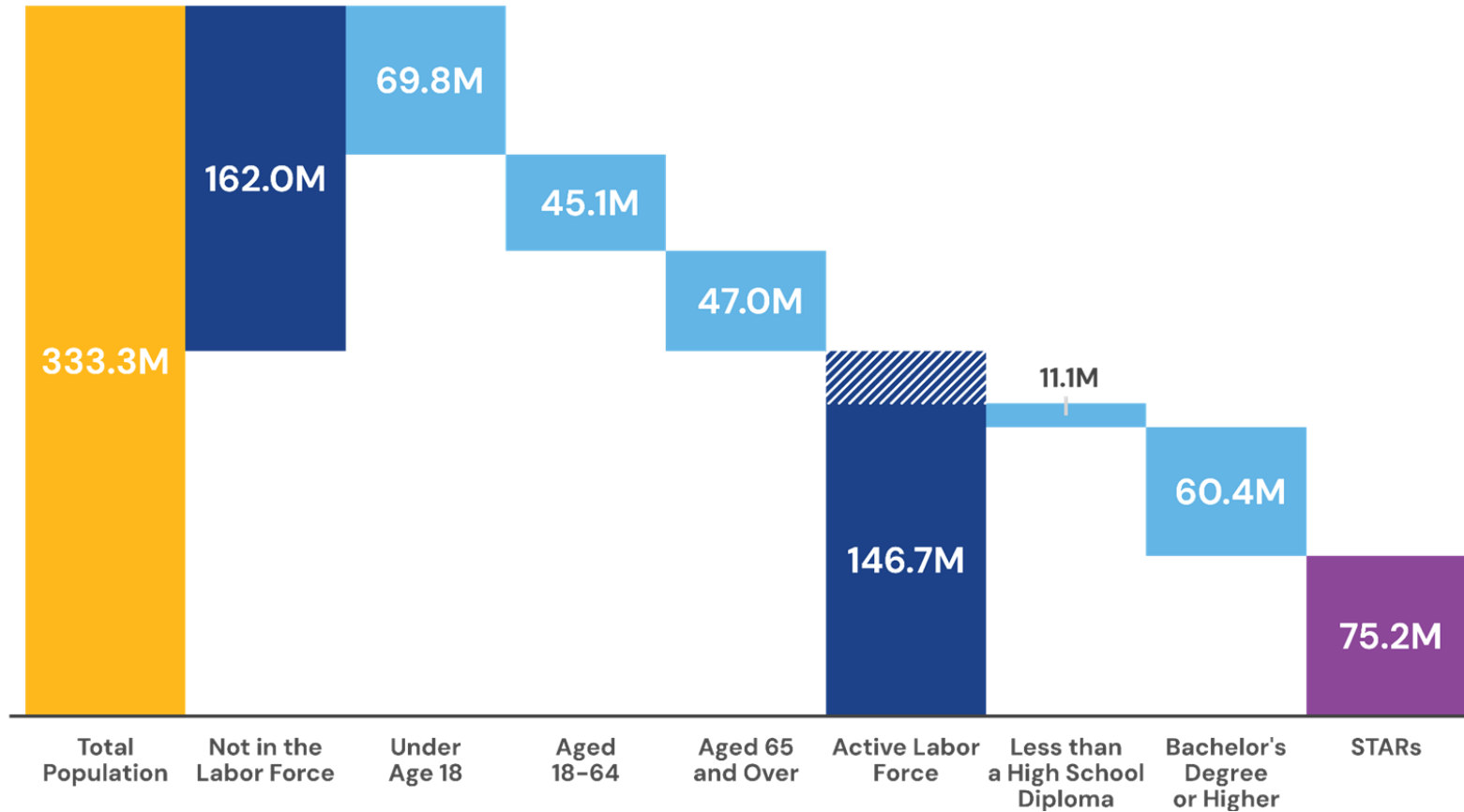
**STARs**   
SKILLED THROUGH  
ALTERNATIVE ROUTES

NICE/NIST Cyber Career Week  
October 16, 2024

# Who Are STARs

The majority of US Workers are Skilled Through Alternative Routes

There are more than 70 Million STARs in the US Labor Force



Source: Opportunity@Work analysis of the 2022 1-Year American Community Survey, Integrated Public Use Microdata Sample."

\* Estimates are limited to the civilian, non-institutionalized, labor force aged 25 and older. This excludes approximately 24.6 million workers.

# Degree requirements, social networks and misperceptions present barriers to STARs

70% 

of new jobs between 2009 and 2019 were in occupations where employers typically **require a 4-year college degree**

3x 

Degree holders are 3 times more likely to have a **strong network** than non-degree holders in the USA

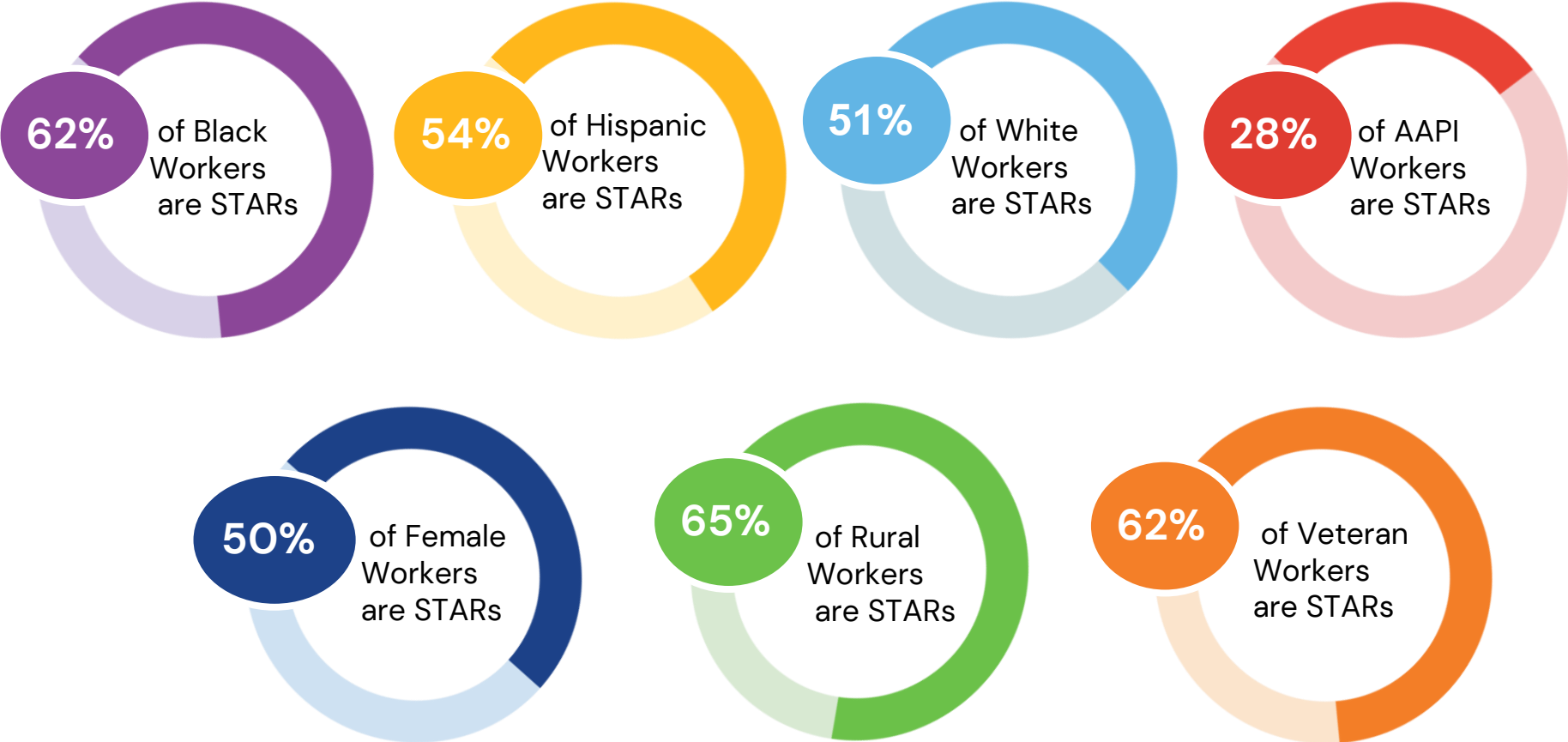
\*A strong network is defined in relative terms. In this study, someone with a strong network is someone who has a network strength score in the top 20% among U.S. members.



50+% 

of Managers **overestimate** the proportion of the workforce who **have a bachelor's degree**

# Race Equity: STARs of all backgrounds held back, including majority of Black & Hispanic workers



Source: Opportunity@Work Analysis of the 2022 1-year American Community Survey Integrated Public Use Microdata Series.

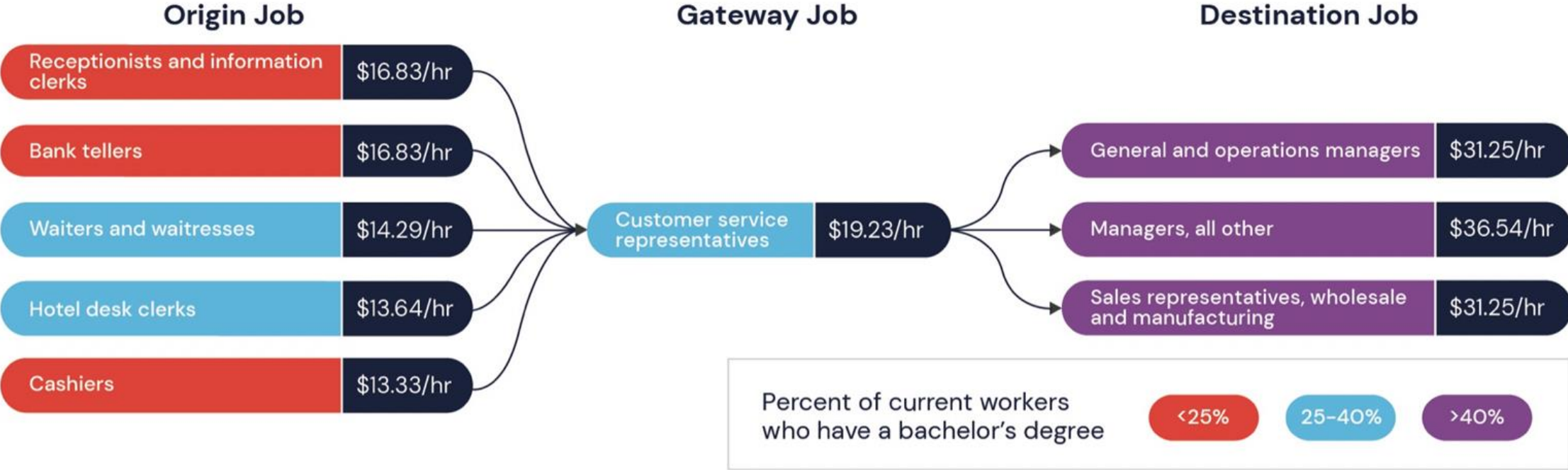


# Many STARs Have the Skills for Higher-Wage work



This figure shows the high skills overlap between two sales roles. The first is accessible to STARs, while the second is less so. About 96,000 STARs have made this transition in the five-year period from 2017 to 2021.

# Study of 130 million worker transitions shows STARs Achieve Mobility Through Gateway and Destination Jobs



Note: Wages calculated for workers aged 25 and older.  
 Source: Opportunity@Work analysis of the 2021 Current Population Survey, Annual Social and Economic Supplement, Integrated Public Use Microdata Series.

# Nearly half of all STARs have a skills profile that could earn them 50% higher wages

There are 3 distinct STARs segments, defined by readiness for higher wage work based on the skills profile of the worker's current job



## Forming STARs

**36M workers** do not yet have the skills for significantly higher wage work, based on their current role



## Rising STARs

**30M workers** have the skills for significantly higher wage work (50%+), based on their current role



## Shining STARs

**5M workers** are in high wage roles today

# STARs are underrepresented in the public sector

A higher percentage of employees in the federal, state, and local government jobs have Bachelor's degrees than those in the private sector

## State and local government employees hold bachelor's degrees at a higher rate than federal and private sector employees

Percentage of government workers with a bachelor's degree, by government level

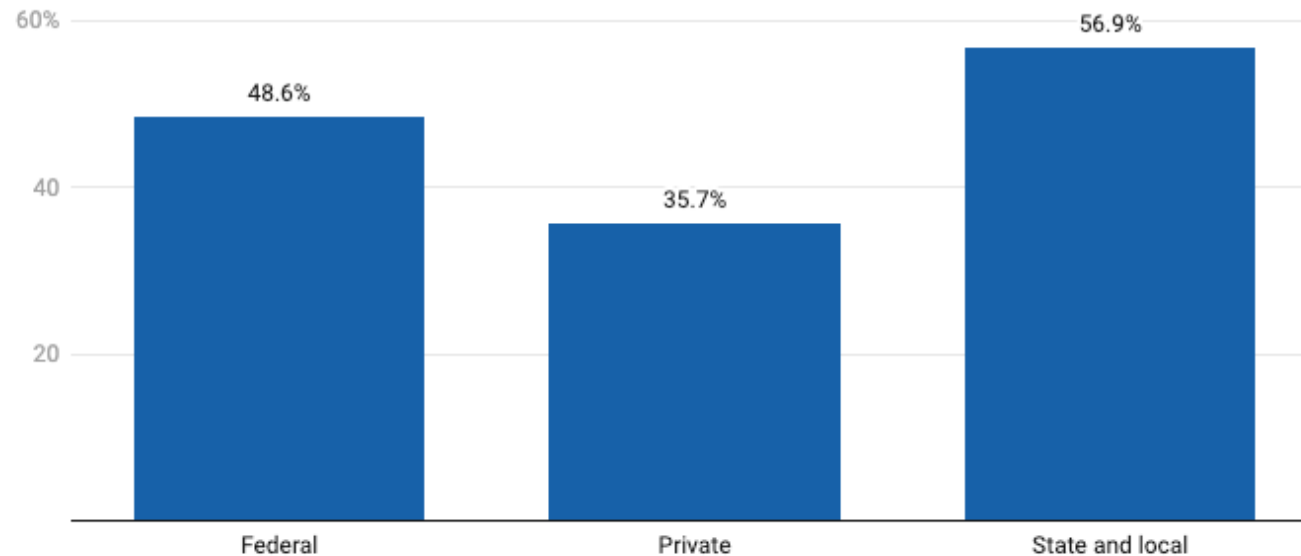


Chart: Center for American Progress • Source: Opportunity@Work calculations based on U.S. Census Bureau, "ACS 1-Year Estimates Public Use Microdata Sample: YEAR 2019 ANALYZED," available at <https://data.census.gov/mdat/#/> (last accessed October 2022).

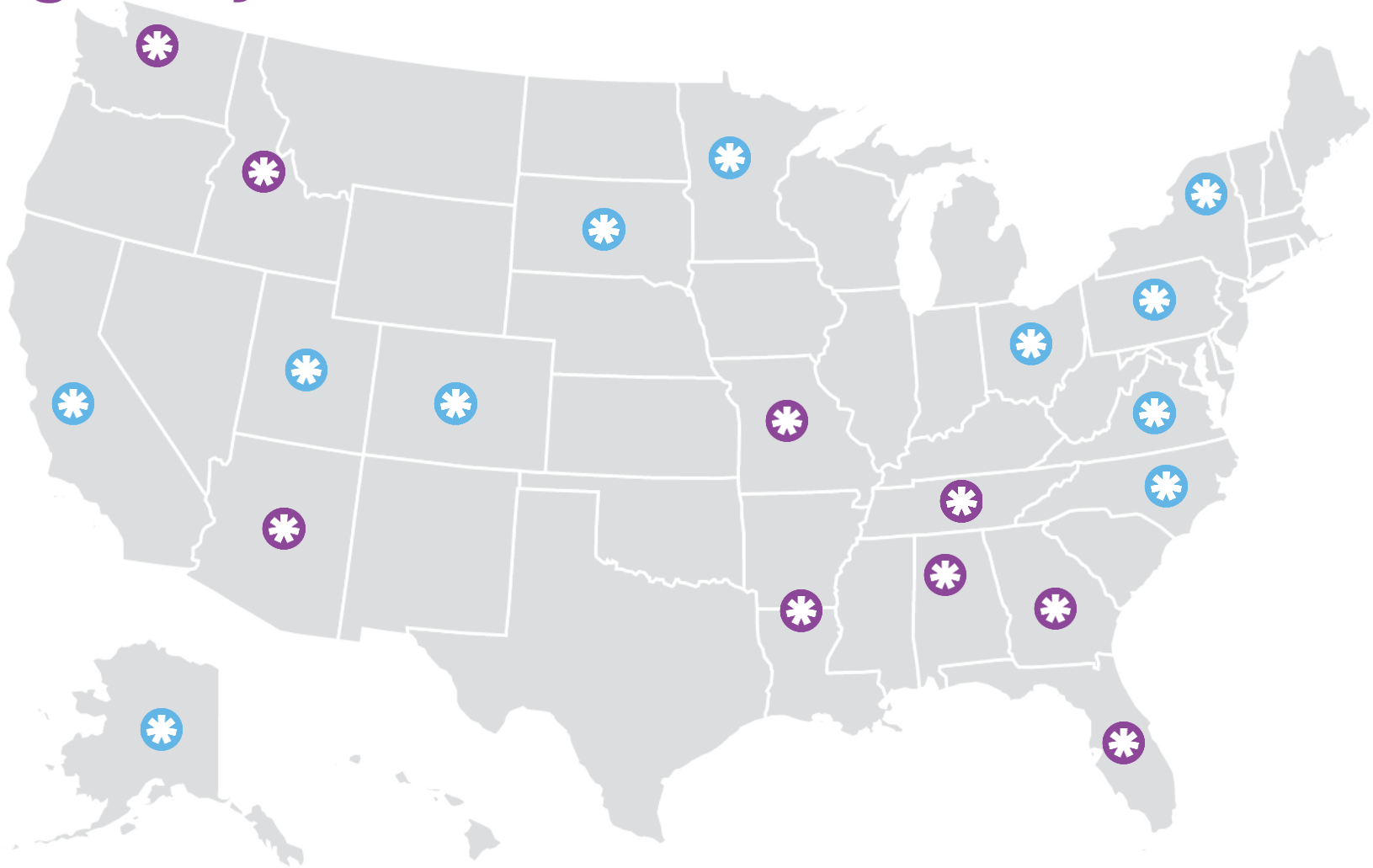
# 25+ States Lead the Way in Removing Degree Requirements, potentially unlocking access to 554,000+ good jobs

9

States passed legislation

15

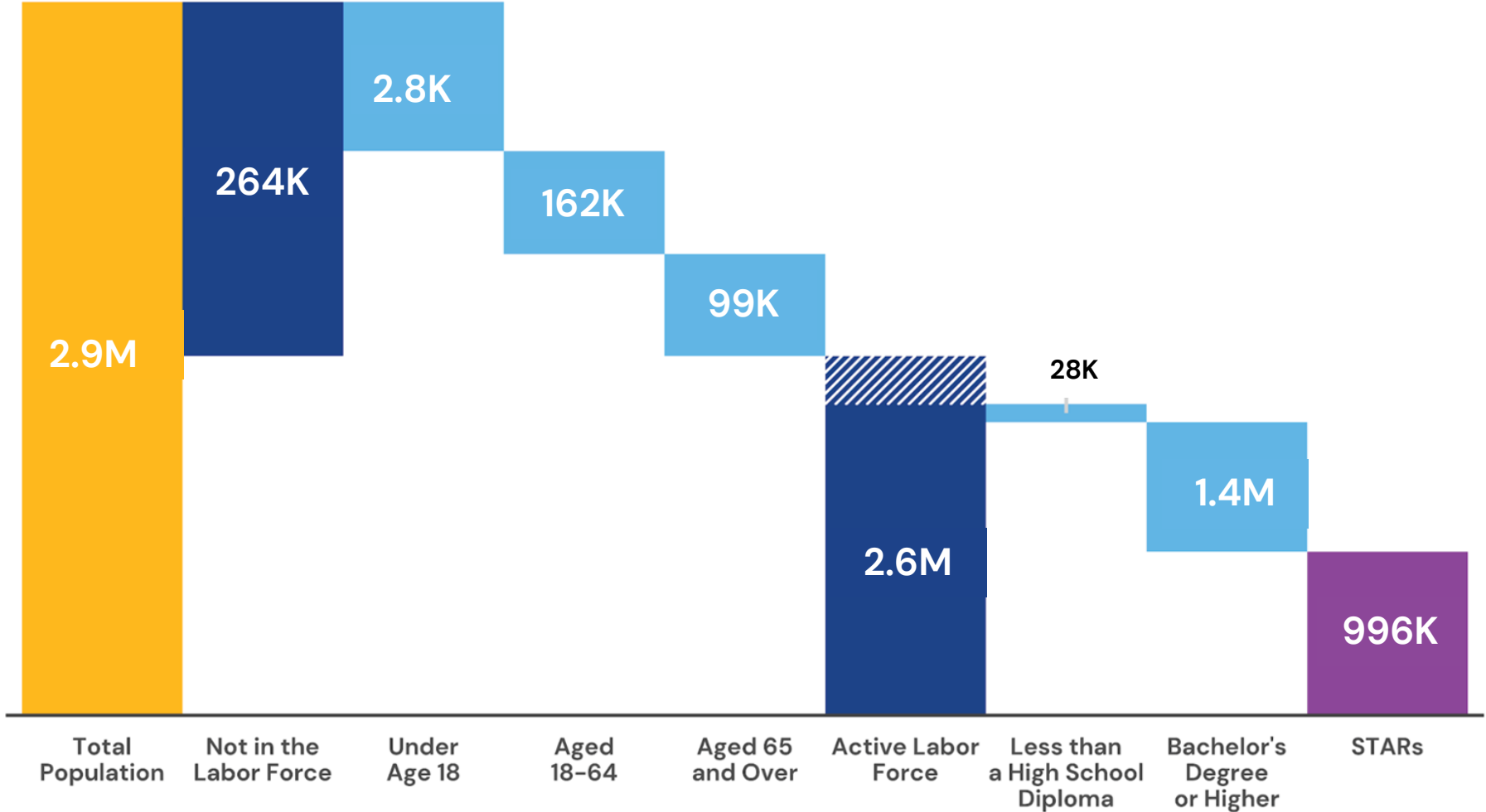
States signed Executive Orders or Administrative Authority



- VT
- NH
- MA
- RI
- CT
- NJ
- DE
- MD

# Almost 1M people working in cybersecurity are STARs

Cybersecurity Population and Labor Force, by Age and Educational Attainment



Source: Opportunity@Work analysis of the 2022 1-Year American Community Survey, Integrated Public Use Microdata Sample.  
 \* Estimates are limited to the civilian, non-institutionalized, labor force aged 25 and older.

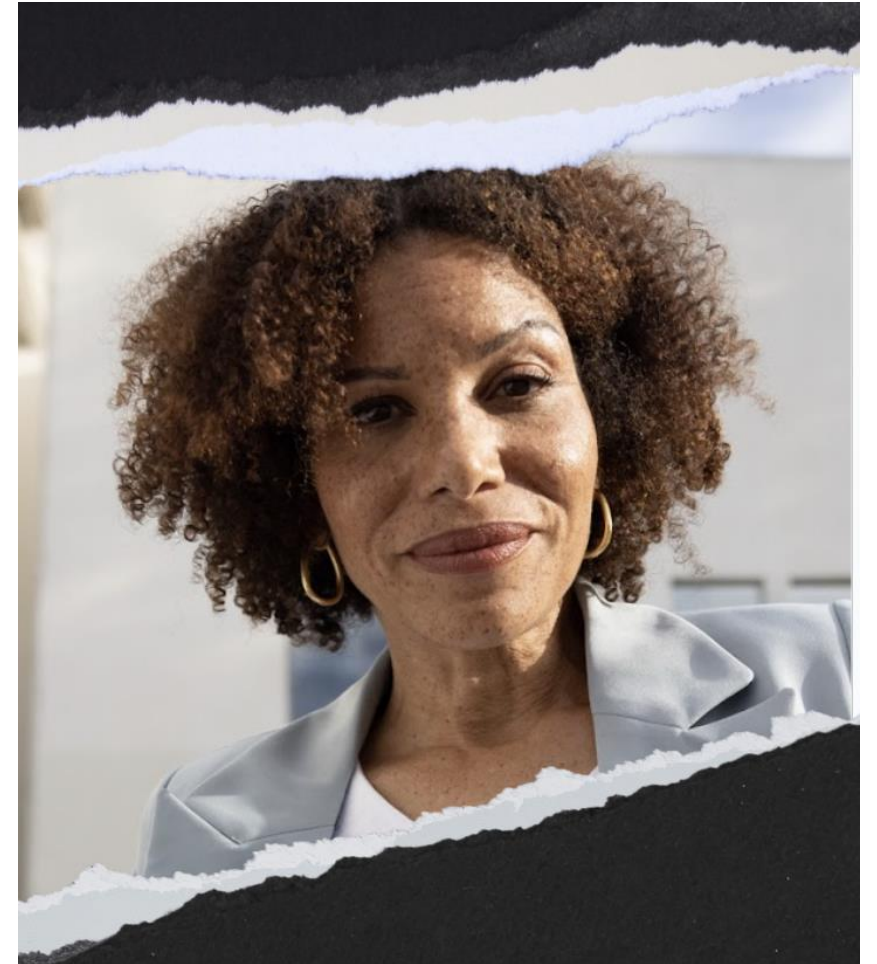
# Less than 40% of Cyber job postings are open to STARs; yet STARs have the skills for Cyber roles

**37%**

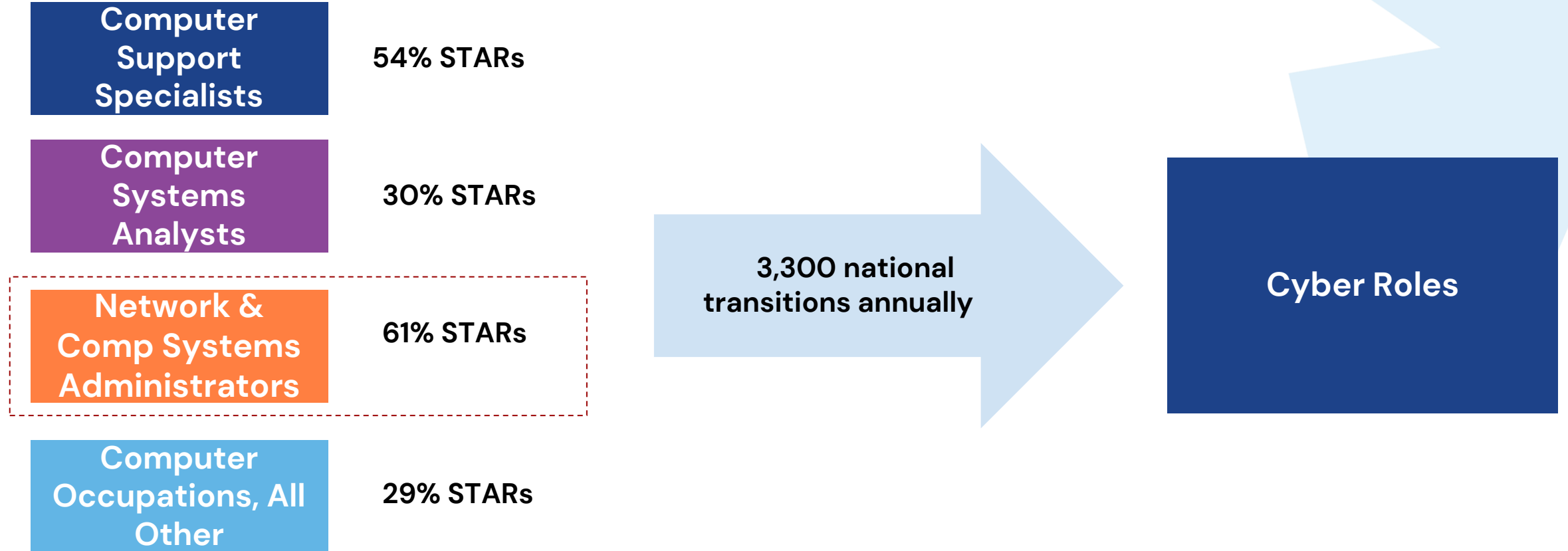
**37% of Cyber jobs are open to STARs**

**3k**

**3,300 STARs are transitioning to Cyber jobs each year**



# Top 4 Origin Jobs for STARs into Cyber Roles



Source: CPS 10-year 2014-2023



# STARs in Origin Occupations Bring a Wealth of Transferable Knowledge, Including Computer Science and Project Management Skills

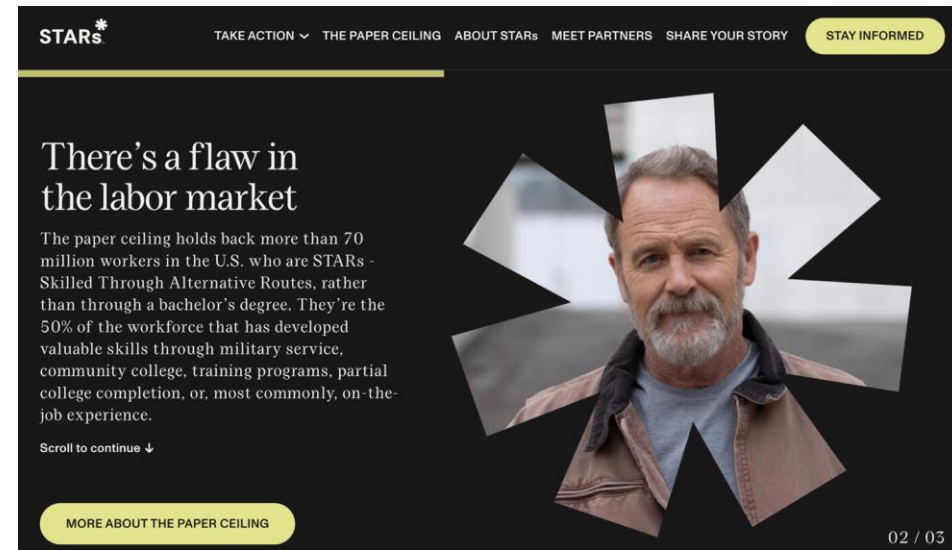
| Top Specialized Skills |
|------------------------|
| Computer Science       |
| Project Management     |
| Agile Methodology      |
| Automation             |
| Python                 |
| Systems Engineering    |
| Amazon Web Services    |
| Cyber Security         |

| Top Human Skills |
|------------------|
| Communication    |
| Management       |
| Leadership       |
| Operations       |
| Problem Solving  |
| Planning         |
| Troubleshooting  |
| Customer Service |

# How to get STARted



[STARs Policy + STARs Public Sector Hub](#)



<https://www.tearthepaperceiling.org/>

# THANK YOU

Feel free to reach out:

[layla@opportunityatwork.org](mailto:layla@opportunityatwork.org)



# Q&A

# Yahlamed Israel

Cybersecurity Consultant  
Merit America IT Support Alumni



# Q&A

# Walmart



10,500  
STORES

LAUNCHED A   
GLOBAL WALMART  
ACADEMY

240   
MILLION  
CUSTOMERS  
SERVED WEEKLY

**Our People Make  
The Difference...  
That's "THE WAL-MART WAY"**

2.1   
MILLION  
ASSOCIATES

90%   
OF AMERICANS LIVE  
WITHIN 10 MILES OF A  
WALMART

19   
COUNTRIES



We are a *people-led, tech-powered omnichannel retailer* dedicated to helping people *save money* and *live better*.



# Preparing Associates for the Future: Live Better U Education Benefit



## BY THE NUMBERS



**Over \$730 million in savings**  
for Walmart and Sam's Club associates



**Helping fill 100,000 in-demand jobs**  
With frontline Walmart associates over 3 years



**25k+ graduates**



# Meet Jason Yang

## Store Associate to Cybersecurity

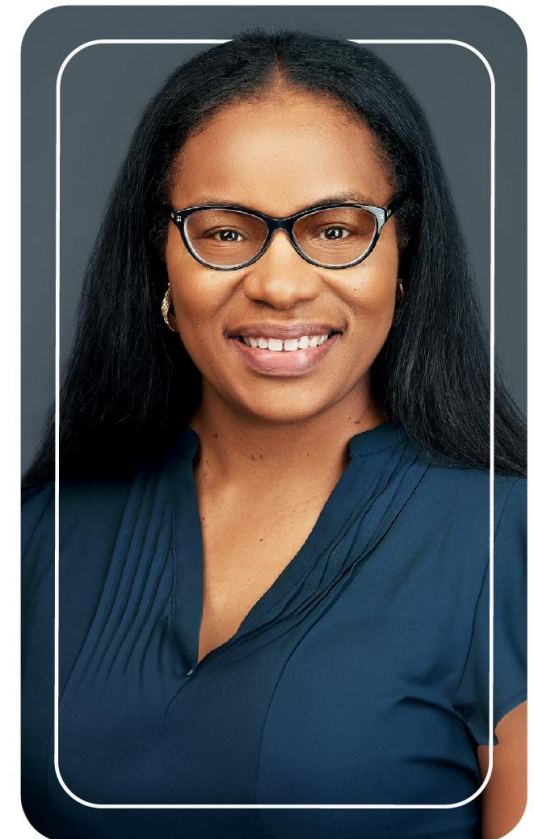


# Connecting Associates to Opportunity

## Top 10 career paths at Walmart and Sam's Club



- 1 Store/Club Manager
- 2 Supply Chain General Manager
- 3 Coach/Team Manager
- 4 Pharmacy Technician
- 5 Optician
- 6 Truck Driver
- 7 Technician
- 8 Associate Merchant
- 9 Software Engineer
- 10 Product Manager



# Q&A

# Panel Discussion



# Submit an event survey!

<https://www.surveymonkey.com/r/Oct2024NICEWebinar>

# NICE Webinar Series

How to Engage Parents, Guardians, and  
Mentors to Help Youth Explore  
Cybersecurity Careers

November 20, 2024, 2:00-3:00PM EDT



**NLST** }  **NICE**