Hello! And welcome to Out West, the official podcast of the Western Governors’ Association, a bipartisan organization representing the governors of the 22 westernmost states and territories. I’m Jim Ogsbury, Executive Director of WGA.

In honor of Cybersecurity Career Awareness Week, this episode of Out West highlights efforts to address significant cybersecurity workforce shortages by building pathways to careers for groups that are currently underrepresented in the industry. Western Governors are committed to developing a sufficient cybersecurity workforce to combat increasingly complex and widespread threats and to safeguard critical infrastructure and national security.

In this episode, WGA Policy Advisor Lauren Cloward speaks with Jeff Rangel, the Senior Director of Global Corporate Responsibility at Palo Alto Networks, about the company’s partnership with Girl Scouts and the importance of encouraging career awareness at an early age.

Lauren also speaks with Patrick Romzek, the CEO and Founder of Bridge to Opportunity, about a public-private partnership model that harnesses the untapped potential of people with disabilities for cybersecurity jobs.

Patrick, thank you so much for joining us today. Would you please just give us some background on the cybersecurity academies and programs that you established and your role in their implementation across the US?

Sure, I’d be happy to. It's a pleasure to be here, Lauren, thank you for including me.

So, I worked in the IT industry for many years. The last 17 years I was at a very well-known company, global company. And what I recognized – I was an executive there – is that we were struggling to find talent.

And at the same time, because I’m a parent of a son with disabilities – my son has Down syndrome – I understood that there was a very large untapped talent pool that was really often not considered for many of these jobs.
So, I started a hiring program to hire people and prepare people for entry level IT jobs. And it was quite successful, not only for the company, but for the candidates. And that led me to set up similar programs in a number of cities in the US, in Europe, well, in Asia as well.

So, my role in these programs is I'm sort of the architect. I'm not the builder. I don't build the houses. I provide the architecture. I provide best practices and guidance on how to do this in a way that's really impactful, but I'm not actually – I don't own and operate the programs themselves.

00:03:02 – Lauren Cloward

You mentioned the fact that you have a model and these best practices. Can you describe some of the key components of the program and what that looks like?

00:03:11 – Patrick Romzek

Sure, I'd be happy to. So, this is an IT training and certification program. We recruit students with disabilities into the program, all with a disability, all unemployed or underemployed.

We put them through a training and certification program which includes not only technical skills but ready-for-work skills.

Many of these candidates have never had professional jobs, so we prepare them for the workforce, we help them secure a job, and we do that all by leveraging existing standard IT training certification programs, and the other thing that's really important is we deliver it tuition free to the candidates by using existing funding and programs.

The other thing I would mention to you, Lauren, is that these programs are all run, owned, and operated by a kind of local consortium, so we do this as a partnership ecosystem in each community that we go into. We're not trying to sort of run and operate these programs. We're trying to be the architects and help other people build programs that have dramatic impact.

00:04:25 – Lauren Cloward

You mentioned that these programs really are a result of collaborative efforts between a number of groups. Can you describe that process of developing those types of public-private partnerships?

00:04:38 – Patrick Romzek

Yeah, thank you. So, a couple things. We engaged – the first three kind of core partners that we look for in a given community are government/funding partners. Usually it's a government program, oftentimes vocational rehab in the US. We look for employer partners who are going to help us get these students placed in jobs when they graduate, and the third group is what we call an orchestrator.
So, as I mentioned, I'm a bit of the architect. And to use sort of a metaphor, we then partner with a general contractor in a given community. Now, that general contractor doesn't necessarily build the house, right, using that metaphor; they don't pound every nail, but they're the ones that engage local members of the community to make this happen.

So, it's a community ecosystem in each one of these communities where we've set up programs like this, and we've done this now in, I think, 15 locations worldwide with over 90% graduation rate and about a 90% employment rate – I think the latest number I had was 88% employment rate of somebody coming into the program, they leave with a job.

00:05:53 – Lauren Cloward
And how important have you found it to be to have a private sector partner engage? Does that help? Do you feel that that helps increase the graduation rates and the jobs after the program?

00:06:05 – Patrick Romzek
Yeah, it's critical. The employers that we work with in those states where we have a program, they are typically local employers. Some of them are truly regional companies, small regional companies. Some of them are national companies. Where we've seen the greatest traction is where there's a greatest demand for IT and cybersecurity talent, which is in financial service firms, IT companies, consulting firms, and other kinds of knowledge worker types of jobs.

The two – really, well, all three of those partners are critical, so we absolutely need to have employers engaged. We try to keep them engaged throughout the program, not just at the end to hire the candidates, but frankly, even during the program to enrich the training, whether it's virtual site visits or guest speakers.

Government and state and other government groups are critically important because they often have a lot of, not only access, but visibility to the community, and candidly, we use existing government programs to fund the program.

Many of these candidates are poor. I think about a quarter of the people with disabilities in the US are below the poverty line, meaning they live in poverty, so they're not going to pay thousands of dollars for a training program. But in partnership with local governments and existing programs, we can deliver that program to them tuition free through either the GI Bill for veteran or existing vocational rehab programs.

00:07:34 – Lauren Cloward
And I know you touched briefly on this before, both with your own personal experience and then also with this group of untapped talent, but why are you focusing specifically on people with disabilities? What is that gap that you're looking to fill?

00:07:51 – Patrick Romzek
Well, great question, Lauren. So, you know, there are thousands – hundreds of thousands of open IT jobs in the US. The number worldwide is about 2 million. There's a huge shortage of talent for a lot of these entry level jobs and candidly, sometimes students aren't well prepared for those jobs.

At the same time, we have a pool of 50 million people, roughly, in the US, with a disability. Only about one in five has a job, and oftentimes they're underemployed, so it's a huge pool of potential talent and a huge need for talent.

And so that's why we call these Bridge Academies – it's that we're sort of creating a bridge across the river for the people who are trapped and don't typically have meaningful jobs, and the other side of the river are all these employers waiting for people to fill these jobs.

00:08:43 – Lauren Cloward

So, you mentioned IT jobs as a whole, but I know that some of your programs specifically are geared towards cybersecurity and cybersecurity training. So, why is that and why is cybersecurity workforce a particular issue that you've decided to gear your programs toward?

00:09:01 – Patrick Romzek

Really simple: huge talent pool and they are jobs that people can do. So, entry level cyber jobs are meaningful jobs that candidates find a job that can lead to a meaningful job that leads to a meaningful career that leads to a meaningful life.

Right, I mean, what good does it do in your life, Lauren, to have a meaningful job? It means everything, right? It's self-esteem and all the other things.

There's a significant global shortage of cybersecurity talent. And because of COVID, the problem is getting worse because many employers now are embracing new technology platforms for work, working virtually, all those kinds of things. Guess what they want to do? They want to digitize their business and they need to protect their digital assets. That's cybersecurity.

00:09:47 – Lauren Cloward

I know that you mentioned how transformative this program is for everyone involved, and I know that inclusivity can help drive both innovation and economic growth in the job market. So, what results have you observed from these programs, including, you know, any personal stories of the impact they've had on candidates?

00:10:07 – Patrick Romzek

So, every time we do a program, we try to learn from it and apply to the next one. So, there's 15 locations worldwide in about 11 different states – we have candidates in about 11 different states. There's about 200 candidates that are currently in one of these Bridge Academies somewhere.
So, we've had a lot of success and when people see that success, they want to replicate that success and that leads to opportunities in other states. So, we're certainly interested in expanding into other locations as well, but most of our growth has been organic. We start a program somewhere and it becomes a pilot, and it gets replicated, and that sort of thing.

We currently do not have any programs in the western states and there's no real reason for that. It's not because I haven’t focused on it. All this growth, as I said earlier, has been organic. So, somebody knows somebody, somebody hears about the program, and it's like, hey, I'd love to do that in my community, and that's sort of how we've been growing. So, we would welcome the opportunity to do something in western states.

But most importantly, it benefits human beings. So, I'll tell you about a couple of examples, Lauren.

One is a candidate that was in our program on the east coast who had MS and he desperately wanted to be in this program. He had a number of part time jobs. I think the last job he was a, you know, telemarketer for a car dealership. Part time, minimum wage job. Wanted to work in IT, was capable of a lot more, was in a wheelchair, but he had MS as well. And he did so well that he went to work for an IT company and now his, you know, his life has changed.

Another candidate was a wounded warrior actually, was a veteran and a single mom. She had elementary school children. She had a mobility impairment, and she couldn't even get an interview. She went through this program, and she had two job offers within two weeks, I think, of her graduation. She now works for a large financial service firm and is a cyber security analyst.

Another candidate who's in our program right now, I got a call a couple months ago from a mother. She said, I heard you have this program blah blah blah, let me tell you about my son. I said, tell me about your son. He's 23, he graduated from high school with honors five years ago. He was reading at a college level in 6th grade. I said, does he work, she said, yeah, he works at the grocery store. So, this is somebody who's very capable but had no opportunity, and he's bagging groceries. That's the waste of human capital that we can do something about.

So, my point is, this is not only good for business, great for the community, but most importantly it transforms lives. Those kids now have a lifetime of success because they got an opportunity to prove themselves. And most of these people, all they want is an opportunity to prove themselves. We give them that chance through development of skills and giving them experience that leads to a job.

00:13:08 – Lauren Cloward

Thank you for sharing those stories. I think the personal aspect of it and that human aspect of it is what makes these programs so interesting and so important, and the huge impacts they have on people's lives both across the US and internationally.
This kind of leads me perfectly into my last question today for you, which is what can western states learn from this model and how can they launch similar initiatives in their own states?

00:13:37 – Patrick Romzek

I had a boss years ago who used to say to me, if you always do what you've always done, you'll always get what you've always gotten, and that's true here. This is something that's a little different and innovative, but it's having real impact.

We can make a difference. We can do this in any one of these western states where we have the right consortium and partnership opportunity, where we've got organizations that want to lead this as kind of an orchestrator. We've got state department of voc rehab that wants to do something innovative and get better outcomes with the funding that they're already spending.

Typically, these are going to be in larger cities where we have a number of employers, but we can absolutely do this. We've got a model that works. We've done it in a number of locations. There's no reason we can't do it in every state in the west and at the end of the day it has greater impact for everybody involved.

Employers benefit because they get access to talent that they can't otherwise access. They get brand benefits associated with helping an underserved population. They get workforce benefits because these people are more productive.

This is not charity work. These folks will be as or more productive as your typical employee. They typically have lower turnover. They typically have lower error rates. They typically have higher productivity than your normal employee in these jobs. Because these candidates are embracing the jobs with sort of everything that they have and they bring a lot to the party, so to speak.

This changes a person's life not only for that person, but everybody they touch. And candidly, it might change everyone in that person's – for generations, right? I mean, what difference does it make if your parent has a job?

I mean, I was telling you about that single mom. What difference does it make for her three children that she has a meaningful job and a career and feels good about herself and has the economic self-sufficiency associated with having a meaningful, high paying job?

It changes everything.

00:15:33 – Lauren Cloward

Well, thank you, Patrick. I love that, I love that last statement and you saying that this really isn't charity work; it's about diversifying the workforce and bringing in new perspectives and bringing in new skills.
So, we really appreciate that, I think it’s a program that we could really benefit from having in the west. And thank you for all the work you do.

00:15:53 – Patrick Romzek

Thank you and thank you for reaching out. It was a pleasure to talk with you and I look forward to talking with anyone that may be interested in finding out more.

00:16:02 – Jim Ogsbury

Now that we’ve heard from Patrick Romzek about cybersecurity programs for people with disabilities, let's hear from Jeff Rangel about ways to promote opportunities for women in cybersecurity.

00:16:13 – Lauren Cloward

Jeff, thank you for joining us today. Please tell us about Palo Alto Networks’ partnership with the Girl Scouts. How did you first connect with them and begin that partnership?

00:16:24 – Jeff Rangel

Well, hi Lauren, and thanks again for having Palo Alto Networks speak to your audience and we appreciate all the work that WGA is doing. Thank you for that and thank you for the question and the focus on the diversity of our talent pipeline and particularly focusing on youth and young girls.

Palo Alto Networks engaged with Girl Scouts USA in June of 2017 and actually, what's wonderful about that story is it was early conversation between one of our Palo Alto Networks' leaders and a Girl Scout council leader thinking about the benefits and the opportunities of really helping young girls understand what cybersecurity is and how they can be safe online and what that might mean to their careers in the future, so it really did birth out of employee interest, both from the Girl Scouts side and Palo Alto Networks side.

So, we started the partnership in June of 2017 and in 2018 delivered our first 7 badges, 2019 our second set of badges, and it really was trying to find ways to do 3 primary things. We wanted to make sure that first, girls had the skills and the understanding of what it means to be safe online and how to protect themselves and to be aware of those concepts of cybersecurity. So, first was safety online.

Second was really exposing them to STEM and the cybersecurity field and the opportunity that even at an early age they can be thinking about those career pipelines.

00:17:43 – Lauren Cloward

Great, Jeff, and can you describe the program structure? What do those educational opportunities look like and how did you develop those in partnership with the Girl Scouts?
Well, thanks for asking that because it is often about the curriculum and the understanding and the great opportunity with Girl Scouts, of course, is the deep sense of curriculum and the knowledge that they want to instill in girls across a number of topics.

The good thing about our cybersecurity lessons with Girl Scouts is they are broken into 3 distinct badges over different troop categories. And so, we worked with Girl Scouts, we worked with additional external experts in the education field as well to develop those lessons.

It's also trying to make sure that the topics are age appropriate, and so, when working with girls and kinder, with Daisies, helping them understand through concepts that work for them; for example, taking a jewel and how they protect that jewel in a series of layers of protection and put that into a box that really they know this is a treasure for them.

And so, it's trying to look at concepts that they can understand in different age groups to develop those lessons and create them in bite sized activities that in aggregate, allow them to earn their badges in those categories.

Great, and I know you touched on this a little bit just with online safety and building career awareness for young girls, but what problem were you were looking to solve? Are girls less safe online? Are they less represented in the cybersecurity industry? If you could touch on that that would be great.

Sure, you know, the truth is, all the above. Women are underrepresented in the cybersecurity field and technology fields in general and so we know that we have to address that. And Palo Alto Networks and many other companies are taking steps to increase the demographics of employees and the women in their workforce.

But it is also trying to instill those ideas and those career aspirations very early on, and I've had the great pleasure actually of hosting a number of Girl Scout events at Palo Alto Networks and seeing the light will go off and the interest in the field, the interest in STEM is really inspiring to me.

Kids understand that their digital footprint exists, and we have to help them understand what that means. Even having safe passwords and not sharing devices, key concepts that we need to make sure that they're familiar with and following.
260,000 cybersecurity badges have been earned since the program's conception. What exactly is the significance of this achievement and what are other main accomplishments of the program?

**00:20:12 – Jeff Rangel**

I think what’s important to think about too in those 260,000 badges that have been earned by troops is that those badges are resulting in positive outcomes. So, through some research that Girl Scouts did with individuals who had gone through the program, over – nearly 90% of those girls learned something new about STEM through that badge activity, and over 80% of them would also recommend the badge activities to a friend of theirs. And 92% of the Girl Scouts that participated in those surveys liked the badges and the activities.

So, we know that the work is resonating with them and that they are learning something new, so it's wonderful that so many badges are getting earned, but there is meaning and outcome in their activities is the most important part, I think, and we know again through the activities themselves that they are learning concepts and changing behaviors.

We don't often think about what other people are observing of our activities and behaviors, and one troop member said, oh, you know, I have to talk to my parents about the decals that we have on our car about our family, because those are indicators of, again, our family dynamics and population, and it was interesting that she was making the connection about the information that she learned in her activities to what's on their vehicle and what people can see.

So, not only are a number of – significant number of badges being earned, but the results are proving that they're helping girls stay safe, and that they are learning something new about those activities and pursuing those careers.

**00:21:35 – Lauren Cloward**

That's great to hear, I think it's so important to have that career awareness from a young age. And the program itself, what ages does it target? What part of the pipeline are you focusing on there?

**00:21:47 – Jeff Rangel**

Yeah, the Girl Scouts badges address K through 12, and generally, again, across the dynamics of the Girl Scouts categories – Daisies, Brownies, Juniors, Cadets, etc. – and so it is addressing very early those concepts.

But when we start earlier, we're also helping to instill those activities and those habits and that understanding as they progress through their academics. And studies show, again, that the interest in STEM will drop if it's not nurtured early, and so we want to start as early as possible so that they can, again, understand it in the concepts that work for them at that age, but that
they can also build upon it, and that it becomes ingrained in their learning and ingrained in their habits and ongoing interest, rather than something that is unlikely to start later.

The other thing I think that’s important is, you know, cybersecurity companies rely on so many other talents across their business, and what’s wonderful about being involved in a cybersecurity company is being mission driven.

And so, while we're also interested in making sure girls are following careers in STEM, we also need independent thinkers who are looking at marketing skills and human resources skills and sales skills. We want to see women excel in the cybersecurity industry at large in addition to the technology roles, and so, the earliest we can start in cybersecurity habits, the more opportunity we will have for them to develop those skills and stay interested and excited to become those future leaders.

We have a number of other similar activities we refer to as Cyber Aces, that is, again, addressing that same audience. But what we also find very interesting when we’re deploying these badges and the lessons and activities, through these adults are learning things that they might not have been familiar with.

So, as parents are bringing their Girl Scout to activities, we're often doing some additional activities and lessons with them. So, while this work is again addressing the Girl Scouts and that K through 12 audience, it is also helping others and others that they interact with learn what it means to be safe online.

00:23:46 – Lauren Cloward

And Jeff, where is this program taking place?

00:23:50 – Jeff Rangel

Well, Lauren, as we know, Girl Scouts is a national organization and has reached overseas to Girl Scouts overseas as well. So, any Girl Scout troop leader can access information about the Palo Alto Networks cybersecurity badges through the Girl Scouts portal and be able to access information about the lessons and opportunities for them to engage locally.

For Palo Alto Networks and our opportunities to support those activities, we generally look for councils that are aligned with major employee population areas for us. Pre-pandemic, we hosted a number of activities at our Santa Clara headquarters and in fact had over 300 girls there for a day-long cybersecurity event and activities. We have hosted events online as well. We have activities with troops in Washington, in Southern California, and in other areas.

There's information on Palo Alto Networks’ website and our corporate responsibility page about our partnership with Girl Scouts as well as our Cyber Aces and Cyber Stars activities and lessons to help you stay safe online.
There's a number of ways to find out about the materials and we're so appreciative of the opportunity to provide employee volunteers, whether it's virtual or in person, when safe and appropriate, to help deploy those activities and lessons.

00:25:02 – Lauren Cloward

I appreciate that point, and zooming out to the full cybersecurity workforce, how will this program build and impact the cybersecurity workforce now and into the future?

00:25:15 – Jeff Rangel

I think that's another area when we talk about our employee engagement aspects and having employees be involved in the deployment of the activities and the lessons. And our employees are so passionate about cybersecurity that programs like this also help us retain and attract the adult talent that is helping us succeed in business.

So, you know, as we – whether we go early up the pipeline to kinders to our existing workforce and other talent out there, understanding that we're engaging and investing in our future workforce is inspiring to the existing employees that want to be a part of that activity. So, it is certainly a growing cycle that allows us to recruit and retain professional talent as well as inspire future leaders.

00:25:59 – Lauren Cloward

With the building interest among girls at such an early age, what benefit is there to kind of bringing in groups that are currently underrepresented in the industry?

00:26:11 – Jeff Rangel

Palo Alto Networks knows as a company that diverse thought, diverse interest, diverse backgrounds makes for better decisions, makes for a great place to work, makes for inviting cultures that represent so many unique ideas and interests.

So, inclusion and diversity is a key objective of our business and helping to instill that across all of our social impact programs to help diverse communities understand what we do as a business and how we're helping to grow the diversity of the population is all part of our objectives, and these programs help to inspire that same objective by bringing those diverse thoughts and ideas into the business.

And again, when we're participating in these activities, you know, individuals want to see others that represent them, they want to see themselves in that future, and that's why it's so important to make sure that our communities show up and participate. Our employee network groups are also very active in delivering these lessons and activities – those representing our Black community, our Hispanic community, our LGBTQ workforce, women, veterans, etc. etc., all involved in these aspects. And so, when those represent the diversity of the business, that helps to foster that across organizations that we work with as well.
00:27:23 – Lauren Cloward

Well, thank you so much Jeff. It was really a pleasure talking to you today and learning more about the program.

00:27:30 – Jeff Rangel

Well, I would just thank you again for having Palo Alto Networks speak. It’s a great opportunity to share and to recognize the strong interest that everyone has in helping people stay safe online and to grow the diversity of our workforce.

00:27:44

(Outro music plays)

00:27:52 – Jim Ogsbury

(Outro music plays in background)

Thanks for listening to this episode of Out West, presented by the Western Governors’ Association.

To learn more about our ongoing work on cybersecurity and workforce development, please visit westgov.org. And be sure to join us next time, as we continue to discuss critical issues facing the western United States.

Finally, WGA would like to thank Jeff Rangel and Patrick Romzek for sharing their expertise on creating a skilled and sustainable cybersecurity workforce equipped for the challenges of the 21st century.

Happy trails, everyone.