

## Manufacturing a Future Post-Release: Two Paths to High-Skill Manufacturing Jobs Transcript

- My name is George Chochos, and I'm a Senior Program Associate with the Vera Institute of Justice. And I'll be moderating today's panel discussion. Thank you for joining us today for our webinar to close out Second Chance Month titled "Manufacturing a Future Post-Release Two Paths to High Skill Manufacturing Jobs." I need to make the disclaimer that this webinar is going to be recorded and will be available for review later on. A little bit about the Vera Institute of Justice. The Vera Institute of Justice offers training and technical assistance to grantees focused on education, employment, and reentry, and we want to connect grantees to peer networks, best practices and resources. So today's agenda. We're going to have welcome and introductions, panel discussion and audience Q&A. For those that want to ask questions of our panelists and make general comments, please do so in the chat function that you see on this WebEx webinar. Very briefly, manufacturing and installation jobs are in high demand. Just one of these I just want to highlight is that over 2.1 million manufacturing and installation jobs could go unfulfilled by 2030. And this will be an opportunity for people who are currently incarcerated and formally incarcerated, to learn the skills to be able to participate in these jobs and earn a living wage. The federal government has made a major investment in infrastructure with the Biden Administration's Infrastructure Investment and Jobs Act. Just three provisions I want to highlight before we get into our discussion: that this bill will establish programs to encourage energy efficiency and domestic sourcing and manufacturing for battery storage, solar panels, windmills, and other clean energy technologies. The bill will also provide \$500 million for five clean energy demonstration projects that use technologies such as solar, microgrids, geothermal, direct air capture, storage and advanced nuclear. It also funds a \$500 million brand program over five years for efficiency building codes in public schools. So let's meet our panelists. Again, my name is George Chochos. I'm a Senior Program Associate with the Vera Institute of Justice. We also have with us today Jennifer Sanders, who's the School Superintendent over the Ohio Central School System, Ohio Department of Rehabilitation and Correction. We also have Derek Reilley, Program Director at Colby Community College. Matthew Fieldman, Executive Director of America Works, and Danny Denio, Regional Manager of Blue Raven Solar. So I'm going to ask the panelists to introduce themselves in this order, starting with Jennifer Sanders.

- Hello everybody. My name is Jennifer Sanders. As they said, I am the School Superintendent of the Ohio Central School System. This is a school system that serves the incarcerated people in Ohio. We not only do education opportunities, we do career training opportunities and the Office of Workforce Development falls within the school district itself. The Ohio Department of Rehabilitation and Correction houses about 43,000 incarcerated people in our state and is truly a pleasure to be here today. Thank you.

- Thank you, Jennifer. Derek.

- Yes, my name is Derek Reilley. Thank you for having me. I am the Program Director at Colby Community College, and we have certificate programs in both solar and wind power. As well as, with an associate in applied science degree. We also have duplicated the exact same program on our campus as we have at Norton Correctional Facility.

- Thank you, Derek. Matthew.

- Hi everyone. Matthew Fieldman. I'm Executive Director of America Works, which is a national initiative to get more people into manufacturing and more people skilled up for manufacturing jobs. I work within the Manufacturing Extension Partnership Network, which is funded by the Department of Commerce. We'll talk more about it, but essentially our goal is to make American manufacturers more competitive globally while they grow domestically. So it'll be exciting to talk about how we can get more reentry folks into manufacturing jobs.

- Thank you. And next, Danny Denio.

- Hey everyone. My name's Danny. I'm a Regional Installation Manager for Blue Raven Solar under residential solar. And yeah, I appreciate the invite to this.

- Thank you panelists. So just one further disclaimer, that Vera the Institute of Justice promotes people first

language when referring to people who are currently incarcerated and formally incarcerated. For example, when referring to people in programs inside of prisons, we may refer to them as incarcerated students or just students, and now onto this important panel discussion. So I'm going to start with Jennifer Sanders. So Jennifer, what types of initiatives do you offer in prison, why are they important, and what types of programs do you see that are needed in the future? so in Ohio, there are three pathways to graduation. We offer all three within our school district. There is a career technical pathway. There is the high school equivalency or GED, HiSET, TASC option, and of course there is an actual high school diploma. We offer over 20 career trade fields throughout our system. In those trade fields are everything from your construction trades, welding. We do manufacturing. We also do photovoltaic and some other sustainable type of industries. We have partnerships with six colleges in Ohio. Those six colleges offer a wide variety of programs, and we do offer college at every one of our prisons, regardless of security level. The programs are all the way to a degree option, but it is a micro credentialing type program. We call it advanced job training. And within those opportunities, they can build up micro credentialing in fields, such as business, but also in advanced manufacturing, we offer a program through that, logistics, which does support manufacturing, sustainability, and some other programs like that. We also offer and we're about to get to offer and a new program in telecommunications, tower technician training where we are going to be working with our community college to provide the opportunity for our incarcerated people to become telecom tower technicians, to support Ohio's initiative in 5G and broadband expansion. Inside of our facilities as well as in most facilities across the United States, we actually do a lot of manufacturing type jobs with our penal industries. So the Ohio penal industries is a function of the Department of Rehabilitation and Correction that does actually manufacture things. And so people are getting experience every day in prisons across United States in working in manufacturing. So they do a wide variety of products and a wide variety of opportunities. Many of those opportunities are with actual external partners. So the external partner would work with our penal industry. And if it's allowable, would be able to employ our incarcerated people. We also do have opportunities where we work with many companies. Most are manufacturing companies in Ohio where people who are incarcerated with us actually have outside employment, and they do that external to our corrections facilities. So there are a wide variety of opportunities for incarcerated people to receive training, to receive credentialing and certainly to receive experience in working in an industry, manufacturing and within the green industry, if you will. These are important because we recognize that people who come to us and are in our care do require some skill building. They require rebuilding of skills and some of them require retooling of skills. And so we want to make sure that we are meeting the needs of the incarcerated people in Ohio and the needs of our business partners. To do that, we actually have a seat with the Ohio Manufacturing Association, and we work with them to understand what their needs are and make sure that they understand the incarcerated people that are leaving us and becoming restored citizens and how best to connect with them. My Workforce Development coordinator is the one that sits on that association, and works very closely with them about making sure that we are tooling the workers of the future. As we look at what we need to do as a corrections education group, we are looking at building out our career training opportunities, more into sustainability industry manufacturing. We have already started with the telecommunications tower technician program. It is the first of many opportunities that we are looking at upcoming industries so that our incarcerated people are trained and skilled and ready to be received in the business industries that need them the most. I think that covers everything that I have. Thank you.

- It does, thank you. So next I want to turn to Derek Reilley. So Derek, please tell us a little bit more about your program. What are the types of programs, or why are the types of programs that you offer important? And can you just mention maybe one or two success stories?

- Yeah, thank you. So what we do is basically we have a couple different certificate programs that we offer. One is in solar photovoltaics, and one is in wind technology. And at Norton Correctional Facility, we do this as a two semester option. So they can actually spend two semesters with us and actually earn one of those two credentials. To take it a step further, we have an additional two technical certificates. One in solar and photovoltaics and one in wind technology that's a little more robust training, more classes, more education, and a larger skill set. And they can also complete those classes in a two semester period. And then to top it all off, we have an associates of applied science degree in sustainable renewable energy. And so that's basically half solar, half wind with the gen eds. And so that's a two year program or four semesters. And what's really nice about this is as our students get released, whether it's the first semester, second semester, third semester, or even sometime maybe midstream in the fourth semester, our traditional program on our campus is offered online, so they can seamlessly continue their education as they get released, and I'll talk

about a success story about that in a minute. Why are these different certificate programs and the associates degree, those technologies and skillsets important? Solar and wind are one of the two fastest growing sectors in the energy sector as we speak. And there are so many jobs. It is absolutely nuts on my end, as far as having enough students to place them in industry. There are more jobs than there are students. And we see that trend clear out to 2030 plus. The pay for the positions coming out of our traditional program, most of our students are starting around \$25 an hour and with overtime and on call pay, it's not uncommon for our first year students to make approximately 70,000 their first year out. We have a lot of feedback that we are doing some things right. Many of our students, such as Danny Denio, that's one of our panelists, he's a past graduate of our program, has continued on and been promoted to regional manager. And I believe that's all been within about a three year window. So the skill sets that we're teaching and within these certificate programs and degree programs are second to none. What we are going through is not only how to install the equipment, but to troubleshoot it and maintain it as well. We also get into certain design features. These are all very valuable skills that probably Danny will attest to when we get to him on the panel. Success story, I'd like to talk about maybe two success stories. So we've had one student from NCF that has been released, and he has seamlessly continued on our online portion. He is not graduated yet, but he is released. And he just came back this last Saturday to one of our hands on boot camps that we have at our college. And I would say comparing this individual to our traditional students: he is in the top 10%. So the training that they are getting and the skill set, even though it's in the correctional facility is still top notch, still gets them the training that is required. So we're pretty proud that it's as just as good as what we have on our campus. Another success story is shortly, another student will be being released and we've worked with our presidents and vice presidents that this particular student will move to our Colby Community College campus, will live in our dorms. Our president gave him a job on the maintenance crew. And then in the fall, he has one semester left where he will actually continue not only his last semester here at Colby Community College, but will also work for me personally, as a work study in the Sustainable Renewable Energy Program. So with relationships with our college president working closely with Norton Correctional Facility, we've really set these students up with success. The jobs are there, the pay is there, and the education is there. And with that, I'll close. Thank you.

- Thank you. I just want to highlight one thing that you mentioned about having a comparable program, meaning that that's a success of the student on the inside, that it was easy to transfer into being successful on the outside because of the quality and the rigor of the program on the inside. Obviously there are going to be some challenges whenever we're doing this in a correctional setting, but it seems that you've done a good job of making sure that there's still quality, that there's still rigor, so that way folks are successful on the outside as they were on the inside. Thank you for that. I know I also have a question, maybe others, too. I've heard this mentioned also by Jennifer. Do you want to explain a little bit more about what photovoltaic is?

- Sure. So photovoltaics means light volt actually. So you're getting voltage from sunlight. So some scientists way back when figured out that if we dope solar panels, different chemicals, that we can actually make electrons move by exposing the solar panels to light. It's kind of a geeky technical subject, but we call it photovoltaics.

- Maybe later, we can also talk more about the logistics of the program and how that's taught inside of a correctional setting, but I'd like to, thank you. I appreciate it. I also just want to highlight a few points as we move to Matthew Fieldman's presentation. Just from the Bureau of Labor Statistics, you'll notice that in 2020, there was a median pay for wind turbine technicians of \$56,230 per year. That's \$27 per hour. The type the typical entry level of education was post-secondary non-degree awards. So some of these programs that we're talking about today are allowing people to have these types of jobs. There's also notice that the job outlook for 2020 to 2023, that is 68% much faster than the average, and what that means is that these types of jobs are going to be growing exponentially. And that's why we want to further expand these programs in correctional settings. So when people get out, they can have a job with a living wage, be able to take care of their families, be productive members of society, and move forward with their lives. So thank you for the work that you've done. Thank you for the presentations thus far. And I want to move on to the great work that Matthew Fieldman is doing at America Works. And so Matthew, can you tell us about America Works and what is the MEP National Network? How can MEP Centers help your company connect with reentry folks as possible employees? And also what are the initiatives like MAGNET and other initiatives like at Purdue and in Missouri? Thank you.

- Absolutely. So the MEP National Network is your taxpayer dollars at work to help support American manufacturing. It was founded in the late 80's. As the American economy became global, it became clear that American small manufacturers in particular, just weren't able to keep up with the international competition they were facing. So the MEP Network was established in all 50 states and Puerto Rico with the goal of helping particularly, America's small and medium size manufacturers, those are under 500 employees, compete globally while growing locally. And so in the 90's, that meant lean and quality and just improving their processes. In the two 2000's, that meant adapting to the internet. In 2010, the 2010's, it was about industry 4.0 technologies like additive manufacturing and big data and things like that. And nowadays it's all workforce or much of it's workforce. We have to fill these 2.1 million empty, open manufacturing jobs, and these are no longer dark, dirty and dangerous jobs. I like to say we've moved from the three D's, dark, dirty, and dangerous to the four C's. These jobs are cool, they're challenging, they're creative and they're commendable careers. I mean, these are jobs, making really important things. I'm actually here in Mobile, Alabama today at a ship building conference. So you can thank, you know, the ship builders of Mobile for the many ships that move our goods around this country. I'm going to put in the chat, the link to all the MEP Centers nationally. They're not all called MEP's, but at all 50 states in Puerto Rico, you can see who your local partner is. So what became very clear over the past few years is that while MEP's are very good at local workforce development programs, there was not enough sharing going on nationally. And, you know, we're all small nonprofits. We don't have a lot of resources. We don't have a lot of time. So we need to work together better to increase our effectiveness and our efficiency, as we're trying to fill this talent gap. So some people got together and we created America Works, which is the idea of connecting all the MEP's plus our community college partners and other national nonprofits that work in this space to get together to share and increase our cooperation and our collaboration as it relates to manufacturing workforce development. What's working, what's not working, what are the lessons that we're learning? How do we work within our own local ecosystems to make more of an impact? So one of the many, many ways that that MEP Centers are making an impact is by working with the prison systems sometimes in the prisons to train people there and get them ready for manufacturing careers. Especially because, like I said, these careers, almost every job starts at \$15 an hour with very, very little in terms of education. We'll talk about that in a second. And real significant career trajectories available. So let me just talk about CNC for a second. So a CNC certificate takes about three months to get on a machine. You're running a half million dollar machine and producing millions of dollars worth of metal parts every year for any of the industries that you and I rely on, automotive, as you can see in the background, trains, planes, you name it, and you know, furniture, whatever it might be, anything made of metal. So you start as a CNC operator. You can then move to a CNC programmer where you're actually controlling the machines, doing a little bit more, become a supervisor of several people working on those machines, and then of course, a plant manager. So there's real career trajectory with education. So MEP Centers are working very closely with local businesses to help them connect with people coming out of prison who might be interested in manufacturing careers. So if we can go to the next slide, I'll talk through the list. So let me talk about MAGNET where I live in Cleveland. So the ACCESS Program was created. It is for people just out of prison, recently released, to learn manufacturing. It's a one month program, 120 hours of instruction, and it covers the basics of what it takes to be successful in manufacturing. It was actually created in collaboration with the local employers who not only sit at the front end to help guide the curriculum, but there's 20 hours of actually meeting the employers, touring their facilities, hearing from guest speakers, talking about their careers in manufacturing. And then of course, the employers commit to interviewing people at the end of the program. And the hiring rates are very, very high as a result of this training. But you know, the basics that are very important are how do you measure something, basic math, understanding quality, safety. Employers want to know that that whoever comes onto their plant floor is not going to get hurt. Understanding what manufacturing processes are. Blueprint reading is really helpful. And of course the business skills, you know, what some people refer to as soft skills. How do you conduct yourself in the workplace to be as effective as possible? And so that's what we're seeing across these programs. And then, so ACCESS is one month, but what Purdue is doing in Indiana in close partnership with the Workforce Development Board There is the Manufacturing Skills for Success Program, which has actually boiled it down to two weeks. And that's also the basics of manufacturing program across Missouri. The win for the person participating in the program is if you go through all 10 days, you show up, you're guaranteed interviews with local manufacturers. The manufacturers of course are beating down the doors to be part of this program. I want to talk about the in-prison manufacturing training, that's happening in Montana and Rhode Island. Again, you know, the MEP is good at coming in and training and connecting people to local employers, but we also need nonprofits and we need the community colleges

and we need the prisons. We need to create a whole support system for people, and everybody has to be at the table. And everyone has to understand what's going to take place. So simple things like moving equipment in and out of the prison is a really important conversation that it too often isn't happening. And so people are getting surprised when they can't bring in calipers or micrometers or bigger equipment. And we need to have those conversations to figure out the logistics of doing these trainings. But I can tell you the reviews from the students at the Montana Manufacturing Training Program were unbelievably positive. A hundred percent of the students said they want to pursue a career in manufacturing upon their release. And that's just thoroughly exciting. So again, MEP's bring the values of training. We bring the employer community, but again we need the partners to be at the table to help make this happen. And so, you know, my call to action would be contact your local MEP, figure out where, where the value adds, where the win-win partnerships are and you know, really develop that local ecosystem. I have the curricula ready to go. I can share it very easily. Even the evaluation surveys, you don't have to create anything from the ground up. It's just a matter of, you know, getting together and saying, yes, we want to do this. And then you can select which of these programs you want to replicate in your local state or community.

- Thank you. I know something comes to my mind I just want to ask you. In terms of the in-prison manufacturing training program that's in Montana, another correctional department wanted to do this. What do you actually need on the ground inside of a correctional institution to get this program up and running?

- I mean, everything you can bring in is helpful, but much of it can be done without anything. So, you know People need to be able to see themselves in manufacturing careers. And so, however, that is, that could be via videos, via bringing in computers. I mean, again, bringing tools in can be challenging. It can be the prisons have issues with stuff coming in, outside things. So clearing that up at the get go is really, really important. But a lot of this education again, can be done without without anything, have someone come in, talk about their career in manufacturing, how they got into it, what they love about it. I mean, that's a great start. And then anything you can do over and above that, you know, like I said, math, not that difficult, blueprint reading, you know, you don't need that much outside stuff, but then anything over and above. You know, I know of certain programs that are literally rolling in, you know, 200 and 300 pound pieces of equipment in for each class. So, you know, there's a big spectrum of how much equipment you want to bring in. So again, that's a conversation to be had, but whatever the prison can do - or if the prison will allow the students to come offsite and do training either at the employer or at the classroom site, that's really helpful as well. So have those conversations figure out what's feasible, where the regulations are and aren't going to prevent you from doing things and go from there.

- Thank you, I appreciate it. And before I move on to Danny Denio from Blue Raven Solar, I just want to mention that, please, for those of you that have questions, please put them in the chat, and we'll make sure that we do our best to get those questions answered during the Q&A session coming up in a few moments. But I'd like to turn our attention to Danny Denio from Blue Raven Solar. And so Danny, in our preliminary conversations, you mentioned that you have hired people who are formerly incarcerated. So can you please briefly tell us about your company and what do you see as the benefit of hiring formerly incarcerated people? What skills were you looking for and what type of skill set development do you think programs offered in prison should offer for the types of jobs that your company provides?

- Yeah, so at Blue Raven Solar, we typically do residential solar. It's you know, homeowners who are looking for a way to reduce their, either their energy bill or looking for a way to do some good for the planet. Yeah, we don't typically do any kind of, you know, commercial work or industrial work yet. We're not that big of a company, but that is something that is very common out there that needs skilled technicians. We typically look for people who have a little bit of a construction background and you know, a lot of it comes down to just effort. A lot of people who, you know, are willing to come into work and actually show up. Those are the people who have the most success. It's always really nice when we find someone who has a background in construction and solar, any type of renewable energy. Those people tend to excel in this industry. You know, people who come in and already have an understanding of how solar panels work. They, how do I describe this? They just excel faster. They already know what's going on. They're already more aware. And yeah, so we do look for employees like that, but solar and wind is not very hard to understand. I like to kind of describe solar as adult Legos, to new people who come onto the job site. It takes a little bit to get used to at first, but you know, once you do it a couple times, it's kind of like muscle memory, and it all becomes super easy. A lot of the other things that we look for, too, like was mentioned earlier is, you know, being able to

work safely. The industry, obviously we have OSHA that's involved. So we got to make sure that we're always safe on the job sites. There are risks in the solar and wind industry. I know, particularly when it comes to solar, we're up on roofs all day long. So there are fall hazards. You have to be willing to have on a rope and harness and you know, you will be working with live parts. So safety is huge. You don't get many second chances. And so, for example, when we are with Derek Reilley at his boot camps that he offers, safety is taken very seriously. So that way you know, everyone is aware when they get into the industry, what to expect. We have had a couple guys actually, who had come from a tough past and they came in, and they actually excelled. Both of them actually already had schooling for solar. I'm not sure if they got that schooling while they were incarcerated or during or before, but they came into the industry a mile ahead of everyone else. They already knew, you know, the ins and outs of solar. And they were able to be really successful. I mean, some of them even had businesses on the outside and were making t-shirts and all sorts of stuff while they were also doing solar. So they're just some cool stories about those guys. I could talk a lot about them but.

- Thank you. It seems like you're doing great work. Thank you for hiring formerly incarcerated folks. As someone who is formerly incarcerated, I know how important that is and how much employment can change a trajectory of somebody's life and also the life of their families. And so thank you for the work that you do. I want to pose this question again for folks, please put questions in the chat. Looking forward to having... Hopefully, let's see. Hopefully we'll be able to get those questions answered during the Q&A. There's a question I want to pose to all of our panelists, and I'm going to start with Jennifer. Earlier I mentioned the bipartisan infrastructure bill, and we notice that there's going to be a massive investment in the hundreds of millions of dollars. So this question, I'll start with you, Jennifer, how do you see the bipartisan infrastructure bill affecting your work and the future of manufacturing installation? In parenthesis, I have there the word green, particularly as it relates to the programs you offer or the business you operate? And so for you, it's going to be obviously the programs that you offer.

- Sure. So we've actually already seen some of the change and directly as a result of that infrastructure bill we are doing in Ohio, a big push to have 5G and broadband expanded across our state. For those of you who aren't aware of Ohio. Ohio is, it has eight pretty large, three very large metro centers, but the vast majority of Ohio is actually pretty rural. So there are a lot of areas in the state that require 5G and broadband upgrade. And we've already seen that the need for that type of training and as a result, our Office of Workforce Transformation and Jobs and Family Services have been paired up with us at DRC to offer the Telecom Communications Tower Technician Program. We anticipate that we're going to continue to see this type of initiative come across and our need to pivot as an education entity to meeting the needs that are coming up as a part of this infrastructure bill.

- Great. Let's go with Derek next.

- Yeah, so it's going to be more of the same that we already have as far as the solar and wind field. I would also echo what she said about the telecom. We have a telecom program as well, and a welding program also at Norton Correctional Facility, but not only right now currently, do we have many, many jobs and excellent careers out there, but it's just going to make even more. So I have companies that just came and attended our boot camp to promote their company to our students. So now we are actually getting more companies interested in our program. They're coming to us and saying, hey, we have jobs. And we let our students know about the jobs. We put 'em on the announcements. We invite 'em to our hands on sessions. And, you know, if we can place students in the industry, then we're filling that void that will be needed because as this keeps growing exponentially, the problem will be the same as when we had back in the big telecom boom. And here we are circling back to it is there's going to be more jobs than there are students. And so the more you can actually expand your program, accommodate more students and provide the same skill set that's necessary for them to get employed, that fills that void in the industry as well. So the industry will be ramping up even more. These floodgates are not all the way open, but they're going to open much further than I think many people are anticipating. These things are going to be wide open, and there's going to be so much opportunity out there. And the pay scale, it'll be very much like in the 90's with the big telecom boom, and I'm looking forward to watching this progress and placing students in the industry.

- Thank you. Matthew.

- So I echo, what's been said, I don't know if there's a stronger word than crisis, but American manufacturing is beyond crisis now, like the billions and billions of dollars that are flooding in to make more stuff related to infrastructure, highways and bridges and roads. It is going to only exacerbate the crisis that we have. And let's not waste this crisis. I mean, let's rise to the challenge and make sure that we're building for the long term and using this talent shortage to build real highways from prison to great careers. And so the other thing I want to mention is, well, I'll mention two other things. Number one, is that there was a question about community colleges and yes, many, many community colleges are working in the prisons. And in some cases in partnership with the MEP's, but there's a lot of certifications out there that are just really fast. They get to the point, they get the person, the skills they need, and then the employers are looking for those certifications as they're hiring. So it's really important that we focus on what are the certifications that someone can learn outside of a two year degree, that that will make them as marketable as possible in the workplace. So that OSHA 10, OSHA 20, that says you'll be safe in the workplace, the NIMS level one that says you can use a CNC machine. All these different acronyms are out there. AWS says you can weld. So there's all these acronyms that are out there that we need to be getting that alphabet soup into people's hands so that they can use them. The second thing I want to mention is that the, in addition to making basic stuff, the technology exists now that is really going to push the sophistication of what we're making. And so we can move beyond just welding and CNC machining in a prison. And so I'm putting in the chat, the one thing, you know, if you want to learn something new today, the nine technologies behind industry 4.0. So American manufacturing is rapidly evolving to adapt to all these new technologies, big data, cybersecurity, connected devices, internet of things, you name it, there are nine of them, and we can do those certifications in prison now. We don't have to wait, you know, wait for someone to come out. So let's get in there, let's get people certified for where the puck is going, not just where it is right now. I mean, again, those jobs, the CNC and welding jobs, they're not going anywhere. They're great jobs, but let's also be thinking about, well, this person really likes computers more than, you know, welding. Let's get them certified for cybersecurity or you know, or other things. So I know that that's a real challenge in some places, but we should be pushing the envelope as much as possible because A it's good for the person and their longterm career. B, it's good for the company and their economic success. And C it's good for our country because we can stay on the cutting edge of the world economy. So those are the things I would say to that.

- Thank you. And before moving on to the Q&A, I see a number of questions from the chat for our panelists. This has been a very rich, and I think interesting discussion and informative, but I want to bring in Danny Denio, to maybe give some thoughts on how you see the infrastructure bill affecting the work that you do.

- Well, I think it'll be huge personally. I'm a manager, so I see the ins and outs of the everyday, you know, installation and the way that the company does things. And I can tell you firsthand that, you know, we are super short-handed, especially with the people who have a lot of talent. I mean, solar is growing at such a huge rate that we come out with a list of regions where we need to hire people. And then the next week that one is filled, and then we have 20 more positions open. It is just, solar is a huge, huge industry. And you know, there's needs for the actual installers who get up on the roof to install the solar. There's a huge need for like what we call site surveyors, who go out to the home, take pictures, they let the design team know, you know, where the panel should be installed and basically get to the nitty gritty of it. Also, there's lots of need for like field operation techs or service techs who, you know, can go out to a system once it's installed and troubleshoot problems. I mean, there's tons and tons and tons of jobs that are in the solar field that need people. I mean, there's even things like solar sales, sales that is, you know, if you have a good understanding of solar and you're, you know, trying to be a salesperson that puts you so much further ahead of some of these people who are trying to sell solar who don't understand the ins and outs of it. And so this bill getting people, you know, more educated on solar or you know, I'm sure it's going to be renewables in general, but it's just super, super good for the industry. I could see it doing nothing, but, you know, helping us out and making my life a little bit easier.

- Thank you so much. So I want to move on to our audience Q&A. I also want to highlight something that Matt said about the need for certifications mentioning how crucial this is going to be going forward in the future. And that's maybe one way on how departments of corrections can be thinking about as they're organizing and developing and implementing their programs. So the first question is for Jennifer. Jennifer from the chat: for individuals who are employed in the ways you described, what is the level of the compensation they earn? Is it equal to what they would be earning in other jobs within the prison or equal

to what they would be earning to those positions outside of prison?

- So first, to be clear, if you are talking about the program that we work with, our external employers and people go out for employment, we do have a Office of Enterprise Development that vets the companies that are interested in doing this. And we do require that they compensate our incarcerated people at the same wage that they would, and anybody who is not incarcerated. And then in state law, we have a system where we help the incarcerated person save. It is actually in statute that we have to do that, but I will also caution, not all states have laws that allow their incarcerated people to go out for employment. We are very fortunate in Ohio that we can.

- Thank you so much. The next question is for Matthew. So Matthew, this is a three part question. I'll give the first part first, 'cause the other two may be easier. When you're trying to remember multifaceted questions, it can be some difficult remembering every single piece of it. So the first is--

- I got pen and paper ready.

- All right . First is maybe you want to put the website for America Works inside chat. One person is asking is there a website for America Works other than the NIST.gov site that we shared? And then here is a two part question now. Could we hear more about how people are involved in jobs in the community while incarcerated in Ohio? What sorts of jobs are they and how do they help people connect to employment post-release, and also, are any of these programs being completed with a college partner for credit or degree completion? And maybe this goes back to your certification issue as well.

- Yeah, yeah. So the website, unfortunately, the website that I run is only available to the MEP Network. It's password protected, but I do write a blog for the public and you can sign up for it. And there's, I'll just put in the post on what America Works does kind of holistically, and you're welcome to sign up and listen to the things I have to say. Let's see, the jobs that are going on in Ohio, a better question for Jennifer. She'll know more about that. The relationship between community colleges, and prisons and MEP's is again, is different in every state. So definitely worth exploring in your state and seeing where the partnerships are. I see there's a question around, can a former prisoner access these programs. Absolutely. I'm no expert, but I have to believe that, you know, many of these programs are more than willing to. Many of these programs are for people outside of the prison. And so definitely worth looking locally and seeing what's available and then certifications that can only be done on paper and pen with the internet. So I'm going to go on a limb and say, we need the internet. You know, people have to be using the internet. I want to give a shout out to, I can't endorse them, but there's a new player in the online education, in the correctional system called Ameelio. I put their website in, I can't vouch for them, but I like their approach of saying, you know, every everything's already online. We need to make sure that in-prison education is online. It's safe. It's works for everyone. So I'm sure the answer is yes, there are some certifications that can be done manually with paper and pen, but I think that misses the forest for the trees. I think it's important to say you need access to ToolingU, which is the big player in online manufacturing education. You can take the tests, you can watch the videos. I mean, it's just like looking at a map and actually visiting a place, right? 2D just doesn't give you the sense of the feeling or any of it of actually being in a culture. And frankly, frankly, we should be getting virtual reality technology into prisons because there are several manufacturing VR companies now that are doing training in virtual reality. So I can take you out of the prison, you know, through this headset and you can feel like you're in a factory and you can maintain a robot and you can use these tools in VR. I've actually never really used a caliper except in virtual reality. So it's really, really a fabulous way. And again, like, I know that, I know there are many, many guardrails here, but we just need to push our correctional systems as hard as we can to adapt to the rapidly changing technology environment.

- Jennifer, Matthew mentioned that maybe you may be able to add to this question to hear more about how people are involved in the jobs in the community are incarcerated in Ohio.

- So we currently have several opportunities. Again, I mentioned the Office of Enterprise Development. It is the entity within our department that helps us vet. Part of what we vet is not just the salary that the incarcerated person would be receiving, but also the post-employment opportunities that are be available, not just for the people who are in that particular job and when they get released, but also in general. In Ohio, we have a very robust program where we work with Jobs and Family Services and others to build



relationships with businesses that are second chance friendly, but the actual external employment opportunities are a little different from that, in that these are people who are actually willing to bring in the incarcerated to be employed. And we have that in mostly manufacturing and warehouse work right now. It is a relatively new program that we are working through, some of our processes. We have had great success so far, and we're really thrilled about what we are doing. I do want to spend a little bit addressing, a little bit what Matthew just said. You know, I understand, I do agree there are guardrails, and there are reasons for guardrails in the correction settings for internet access, but there are ways to make that happen. We currently do a lot of our education, a lot of our programming on direct internet access. So it is possible to do you just need a leadership team that's willing to make that happen. I mean, school is not just the building anymore inside of our prisons. We literally have internet access in our dorms where people can access education materials. And it is certainly an interesting navigation when it comes to the discussions, but truly vital if you're going to prepare people, not just because the content is on the line. The fact of the matter is people who leave our care and custody do in fact need to know how to use the internet. So I just wanted to add that piece, and I hope I answered the other question as well.

- Thank you. I believe that you did. This has been a rich conversation. There's a number of other questions we want to raise, but I want to pose this question particularly to Derek. Somebody is asking, are there photovoltaic programs available in Pennsylvania? And while I'm not sure of if there's any, maybe if you want to talk about what does it take if a correctional institution wants to offer this type of program, what are the components needed in order to get this program up and running and to make it successful?

- Yeah, so it's an interesting question. So I'll start off by saying, this is why Colby Community College developed their program online. So we could hit a larger demographic. There's been a lot of colleges out there that have tried to put in both solar and wind programs and have failed. This allows us a more flexible format yet with our boot camps to achieve hands on training that's necessary to become successful. I'm on my 25th year in education, and I must say that we really concentrate on real world systems, not mock ups, not little tinker toys that we put together on top of our desktop. These are live systems. These are live components, and they're real components. And what we really focus on in our program is how do all the components fit together? What do they do? How do they connect? What size wire do we need? How do we size that wire? What's the math behind it? What's the breaker? How do you troubleshoot it? Let's get the meters out. Let's create problems. Let's figure out these problems. And we've done something right here because from a troubleshooting perspective, our students do very, very well. I'll speak to my students at Norton Correctional Facility. I referenced earlier that they're in the top 10% of the class. What's very unique about them is they want to know everything that we have to say. They want to learn every skill set that we can possibly give them. So a lot of programs out there focus on the mechanical side of things. We focus on the electrical side. And the main reason we do that is intuitively many people have mechanical skills already. And so by focusing on the electrical, they can pick up more naturally on the mechanical side of things where we actually give 'em very intense, robust training on the electrical piece. Funding is always a challenge with equipment. We've wrote numerous grants and there are challenges to get equipment in the doors to the facilities. However, if you're really going to have a robust program, you have to jump through those hoops. You have to have a very robust inventory set up, shadow boards, everything meticulously inventoried. We got the people in place there to do that. And when we roll out our equipment, we will actually bring in live equipment and hook it up, make it work, troubleshoot it if there's issues. And it has been very successful for our program, not only on campus, but also Norton Correctional Facility. I would add that, you know, other, some other colleges have really struggled with this type of program. I get calls frequently. In fact, I just received a call from a student at another wind, who was a student from wind program at another college and said, hey, can you tell me where to get a job? I got people in other states saying, hey, can you tell us how to start a program just like yours? And so we do have our challenges, but to me, it's two things that has to be done for the most part. One is you have to be able to place students in industry. So in the traditional setting, if you don't have jobs, you won't have students, but if you have good paying jobs, good careers where they can be productive as citizens of society, and they're going to tell people to come to your program. And the other thing is enrollment. But again, if you place students in careers, then your enrollment usually takes care of itself. So what's in the middle? Developing a very robust training program. And how do you do that? You get a very top notch industry driven advisory board. I got some great advisors out there, and these are not just all local people. I have business and industries, there's people from the solar industry, not only just from the manufacturers to people that, to your distributors, to your installation companies. And so when you get their advice in your advisory board meetings, they will tell you how to build your program.

And they will tell you what they were looking for technicians when they come to hire. So right now, you know, certifications and everything's great, but there's so many jobs that usually the certifications actually pay off more when the industry is slow. So not to not to discard any certifications, because the more you can paint your resume, the more employable that you're going to be. But when you have companies come in and say, I'll take every student, you have that, you know, they need bodies right now, too. So any skillset that they have is a bonus on top of that. So skillsets, I think is huge. And also, I think Danny touched on it and maybe some of the rest of our panelists, you got to have a good work ethic. Are you going to show up? Are you willing to learn, and are you willing to grow within our company? So with that, I'll close with that.

- Thank you. I think, because this was a specific question coming from Pennsylvania, very briefly, Derek, if somebody were to take your program online, I know we're talking about now about people on the outside, whether they're formally incarcerated or not, are there state specific certifications that you have to have, meaning that if somebody say were to get out of your program or to take a program from another state, is there anything that they would have to do within their particular state, any certification that they would have to have specific to the state?

- Sure, sure. So that would be very specific on what state you were talking about. So, and what your scope of work would actually be. So, you know, there's some third party certifications in some states that is recommended, but not required. Other states, you have to have it if you're going to be an installer. So, you know, for the most part though, when you go to work for a major company, they've covered those... Processes that need to do the work legally, such as they may require a master electrician on site. Well, if they already have that employee with that credential, then the others can work under that scope of that employee. Does that make sense?

- It does, thank you.

- Yeah.

- Thank you very much. And so we're closing in on time, and I want to be respectful of everybody's time. Thank you, panelists. Thank you to everybody that has joined. Thank you for all these questions. I just want to go, maybe in reverse order and ask for any closing thoughts, maybe take 30 seconds up to a minute. We'll start with Danny Denio.

- Yeah, I thought Derek brought up a good point there with the electricians. Just kind of want to add to that. In my company, all of their crews have a licensed electrician on site. So for the most part, anywhere you go, there will be you know, at least some type of certification required for at least one person on the crew, but at least for our company, and I'm sure most other companies are like this well, but anytime you're working all your hours count towards an apprenticeship to actually get your electrical license, which in the long run is just, it's honestly going to make you much more money. And so there are some requirements, but it just depends on what type of role you're looking for.

- Thank you so much. I appreciate it. Matthew.

- So I think I'm pretty excited moving forward. I think there's a lot of progress happening in this space. I think a lot of it's driven by manufacturers being desperate and let's use that to our advantage. Let's make sure that again, we're building not just one off pilot programs, but we're figuring out what works, sharing that broadly and scaling up what's working. So I'm excited to see it and feel free to reach out to me. I'll put my email in chat if anybody wants to reach out.

- Thank you. Derek.

- Yeah, so you know, when I teach at Norton Correctional Facility, I start off with a phrase and I'd like to share this 'cause they're so excited about doing hands on training there. So it kind of come up accidentally one day, I just kind of blurted out, I said, so how many people are starting to get excited because they know it's hands on day. And it is very neat for me to see the students get really excited about the hands on. They kind of chat and holler a little bit for a few seconds. And it's our way basically to say, let's get the equipment out and let's start putting things together. What's my point for telling you all that? I guess from my

perspective is teaching at that facility, they say an instructor shouldn't have favorite students, but to be honest, they are some of my favorite students because they're probably the most dedicated students I've come across. They work hard, they want to learn everything, and so I would love to see more companies jump on board and try to start more programs. We're going to need it with the trends coming up and the expansion. And so I just wanted in closing to share that with all of you.

- Thank you, and Jennifer.

- First of all, I want to thank everybody for listening and hopefully getting something from this. I also would like to encourage anybody who is interested in finding out what their corrections education entity offers, to please reach out to that, to the people in charge of that. We certainly, I would hope most of us, the ones I do know, we do appreciate not just getting questions, helping to educate those who are outside of our particular sphere, but also it helps guide us in making sure that we are providing the right opportunities and the right training for the incarcerated people. It is the core mission of DRC, Ohio Department of Rehabilitation and Correction, but all corrections agencies to rehabilitate those that we serve, and certainly any advice, any suggestions, and certainly questions you have, we would welcome.

- Thank you for all these final words of wisdom. And here are some... key takeaways. Think about innovative ways college and corrections can develop green technology programs, investigate opportunities to train people for jobs in infrastructure, partners with manufacturing associations to create pathways to high-wage, high-demand jobs for incarcerated people, provide real world training inside prisons. Don't settle for simulations. You'll notice that the contact information for myself and the panelists are here. I just want to thank the audience for taking time out of your day to join us for this important discussion. I also want to say a special thank you for our panelists for such a rich, informative conversation. And to our attendees, once again, please feel free to connect with our panelists. So you see their contact information on the screen. This concludes our series of Second Chance Month webinars. And finally, as a person who is formerly incarcerated, who's educational journey began in a prison, I wouldn't have the life I have today, if it wasn't for that educational experience. So I also say another special thank you to all the panelists for all the great work that you're doing and to those who have attended today for all the work that you are doing. And continuing to do as we expand our vision for what's possible for currently and formerly incarcerated people. Thank you very much.