Ramona Schindelheim, WorkingNation editor-in-chief:

You are listening to Work in Progress. I'm Ramona Schindelheim, editor-in-chief of Working Nation. Work in Progress explores the rapidly changing workplace through conversations with innovators, educators, and decision makers, people with solutions to today's workforce challenges.

As the US labor force continues to grow, we're seeing that it is requiring ever higher levels of educational attainment. A new report out by the Georgetown University Center on Education and Workforce is predicting that by 2031, 72% of new and replacement jobs are going to require some kind of post-secondary education. Joining me now to talk about this is Dr. Nicole Smith, CEW's chief economist and co-author of the new report, After Everything. Nicole, thank you very much for joining the podcast.

Dr. Nicole Smith, Georgetown University CEW:

Hello. Thank you so much for having me.

Ramona Schindelheim, WorkingNation editor-in-chief:

We talk a lot here at Working Nation about what it takes to get into a good paying job, and these jobs are changing all the time. Let's set the playing field where we're at right now, 2023. What kind of education do we need for most jobs right now?

Dr. Nicole Smith, Georgetown University CEW:

So most of the jobs require some type of post-secondary education and training beyond high school, and I'm very specific to say beyond high school because we're not necessarily talking about a bachelor's degree only, or a master's degree, or some sort of technical PhD, or something like that, we're actually talking about skills in the middle. We're talking about certificates, test-based certifications, vocational training licenses that deal with these technical jobs, associate's degrees as well, sub-baccalaureate is still significant, in addition to the bachelor's degrees and above. So anything post high school. And what's interesting for us is we need to have a conversation about where the trend is, what's happened over the last 30, 40, 50 years, and what we perceive to be the upcoming trend in job growth.

Ramona Schindelheim, WorkingNation editor-in-chief:

That leads to my next question. Where were we in the past? I know that when I was in high school, there was a big push for some people, usually young boys, to go into these skilled training, go into wood shop, go into metal shop, and you can get great careers out of those things, learning some of those skills. Have we always had this trend toward the training, or is this all new?

Dr. Nicole Smith, Georgetown University CEW:

Well, there's always been some trend towards training, so we're just looking at the extent to which it's changed, what's the nature of the change. And I think what you pointed to in the past had a lot to do with the nature of the economy. We were still a manufacturing economy, we still depended largely on our factories and agriculture to boost the growth of jobs. But as time passed and time went on, you had a number of things happening internationally, most of our manufacturing went overseas. So you think of who makes your refrigerators now, who makes your appliances, who makes your televisions now, and it went overseas to a lot of countries, like India and China, and United States decided to elevate its production process to services. So we're not making the televisions, but we're distributing the

televisions, we're marketing the televisions, we're selling the televisions, and there's value added to that.

But what this tells us is the type of skills you need now in order to survive in that economy isn't necessarily related to picking up the tool to produce it, but it's picking up the phone and being able to effectively communicate in order to sell it.

Ramona Schindelheim, WorkingNation editor-in-chief:

So now, we're moving into a new era, where there's a lot of talk about AI and other technology that is making it a more knowledge based economy here in the US, and I would say, frankly, probably around the world, but here in the US, it's more knowledge based. So let's look ahead. You're projecting for the next decade, what do we need to tell young people, middle career workers, on what they need to learn and do to be able to be a thriving member of this economy?

Dr. Nicole Smith, Georgetown University CEW:

First, I'd like everyone, if you have the chance, to take a look at the cover page of this report. It's actually a handshake between what appears to be a human hand and a robot hand, and it tells us, from looking at that image, that we really believe that the future relationship between humans and robots is going to be symbiotic. There's a lot of talk about how generative AI is going to condition work, or make work irrelevant, or replace workers. Negative sells, you're able to tell a negative story. We've all seen Rise of the Machines, and we've all seen Arnold Schwarzenegger act in that movie where the machines took over and everyone was irrelevant as a result.

But I think if we take away from our sci-fi knowledge just a little bit and we look to what the trends have been demonstrating, we see that the number of jobs that are created from technology exceeds the ones that are destroyed. So we're not saying that our jobs aren't going to be destroyed, there will be some that are lost, but we will have jobs that are also created, and the people who survive in the new economy will be the people who are able to use the technology, who are able to, in a symbiotic way, increase their own individual productivity with using the technology. I think there's a clear difference between automation and generative AI, which is giving pause to the knowledge-based economy, because now we're saying it's not only creating the technology to lift a really, really heavy package, but we know ChatGPT can write the letter to the manager about the conditions of the factory and what we should be doing to improve outcomes.

So I think here the concern is, how are we to utilize information to increase our productivity? We will be talking more about complementarity between humans and the technology, much more so than substitution between humans and technology. And the successful people will be the ones who are able to go back to school, get the long-term training that's needed, get the additional 2.0, 3.0 for the machine, so that they can successfully understand that long-term learning is now a part of our general infrastructure.

Ramona Schindelheim, WorkingNation editor-in-chief:

How do you think that breaks up in terms of the percentage, I know you gave some numbers in there, of people who need that four-year degree as opposed to some additional training.

Dr. Nicole Smith, Georgetown University CEW:

We all know that, indeed, there's a hierarchical relationship between the level of attainment and how much you make. So we know that the more education you have, the people who have BAs and graduate

degrees, in general, on average, are going to earn more than people at high school or people at some college, in general. And the reason we always condition that statement with, in general, is there are always exceptions to the rule. There's some certificates that pay more than BAs. There's some BAs that pay more than graduate degrees. So how do you determine which individuals need what in order to succeed in this marketplace? It's a little bit of, well, we know we're going to need a little bit more, we know we have to figure out which ones work. We have to think of career pathways, career lattices, exactly what's the next thing you're going to do, and how are you going to use your educational tool, which is your training, which is your certificate, which is your certification, in order to get you to that job?

So the answer to that question is absolutely not everybody's going to need it, but all of our data, all of our information, all of our history, points us to the fact that, in order for you to move up in your job, in order for you to get that promotion, managers are requiring you to have higher levels of education, higher levels of skill, and you have to recognize lifelong learning as a thing now, where you go back and you get that certification.

Ramona Schindelheim, WorkingNation editor-in-chief:

You do mention in this report that we have a bifurcated economy now, and it's becoming even more so. When you talk about this, we have that managerial, that professional economy, and the blue-collar economy. Talk a little bit about that, explain where you see that going in the future.

Dr. Nicole Smith, Georgetown University CEW:

The only consistency we have is change, so we know everything is just changing. And if you were to think of your grandparents' economy and the way in which jobs were divided by industry, the biggest industries were still in manufacturing, they were in agriculture, and they were in those industries that, in some ways, are considered primary and secondary and standard, human geography and economic terms. So the way in which the economy is changing now, it's moving into those that require extremely high levels of education, and those that require middle skills, or even some high school.

And that's why we talk about the economy being bifurcated, because if you take the economy and you look at all of the general sets of occupations, you find that there are some occupations where you have definitely more than 60%, 70%, 80%, sometimes 90%, of them requiring post-secondary education and training beyond high school. And then, there are other occupations which require less of that education. And if I were to ask everyone who's probably listening to this podcast to tell me which ones, then most of you're going to come up with great answers. We know education as a sector definitely is going to require very, very high levels of education, STEM, which is science, technology, engineering, and math, it's going to require high levels of education. Community services and the arts also require high levels of education, and that's usually because if you think of community services as social workers and those people who are going to be getting in your head and talking to you about life and those types of decisions, we require them to be highly educated, and they're going to have to go back to school for master's degrees and above.

If you think about the blue-collar economy, then it's still, in some ways, sales and office support jobs are still blue-collar, and although you have a significant number of bachelor's degrees, it's still not overwhelmingly bachelor's. You can still get a pretty good job in sales with some type of high school diploma and training, or some type of middle skills. There's food and personal services, there's healthcare support, and then there's the general production occupations, installation and maintenance occupations, that tend to be blue-collar.

I think what we have to recognize is that if you think of, okay, all those jobs, if you want to be in that job, you're definitely going to have to have a bachelor's and above. And you think of the economy as telling you, these are the bachelor's and above jobs, these are the middle skills or high school jobs, in the future, the number of jobs available to middle skill and high school is shrinking, and continues to shrink. And something that you would traditionally think of as a middle skill job, sales, most people thought about sales as just middle skill, but sales jobs can be very, very technical, depending on what you sell. If you're selling sophisticated computers, or if you're selling different types of weaponry that requires high levels of understanding of the mechanics behind it, then you can probably have to go to school and get training for that.

So although we have this bifurcated economy that separates us into highly educated or middle skills and trained technical, a lot of the future is telling us that that middle skill and trained is shrinking, so we definitely know we're going to have to go back and get more education eventually.

Ramona Schindelheim, WorkingNation editor-in-chief:

Yeah, your report also says that 28% of all tasks and current jobs are at risk. So when you talk about those skills, so it's not just that they're disappearing, as you pointed out, it's like go back and get different skills for different tasks. And we point out, a lot of other people point out, some of these tasks we may not even know exists yet. I think this is where the dilemma comes in, where a lot of people are worried about losing their job, because they don't know if they can get those new skills.

Dr. Nicole Smith, Georgetown University CEW:

Well, you have to be nimble. And as an economist, I'm worried not only about acquiring the skills for the new job, but I'm also worried about who's going to come into those new jobs at a later date. We, in the US economy, are an aging economy. We're an economy where most of the workers, the baby boomers have been threatening to retire for a long time, but eventually healthcare concerns and just aging is going to take over, so we're going to have a very sophisticated, very talented, very highly trained baby boom economy that's retiring, and we're concerned about who's replacing them, and the extent to which we are ramping up fast enough to train those workers.

There's so many competing issues here. We have declines in enrollment in higher ed, we have huge amounts of student loans and student loan repayments that are two of the issues leading people to really give pause when it comes to deciding on higher ed. But we know that all of the trends point to the fact that if you want to remain relevant, and if you want to keep your job, and if you want to get the skills for those jobs, you might have to register for it. You might have to go to a community college, you might have to get an online training, work-based training in the office. There is the notion that, by the time you leave high school and you throw that mortarboard in the air, and you walk away and that's it, that's dead. You're going to have to pick it up, dust it off, and go back at various points in your life, and that's how you remain relevant.

Ramona Schindelheim, WorkingNation editor-in-chief:

I think your point about the baby boomers threatening to retire is a good one too, because a lot of baby boomers are not retiring, and that's the part of the population that I have worried about the most, is there's a certain level of ageism in hiring still, despite what we talk about and try to, as a society, and try to eliminate, but it's still there. And the idea that there are people, 45-plus, still need to be trained for that new technology that is being brought into a company. I just saw a report from Generation saying that there is a willingness from this mid-career workforce, 45-plus is what their age is, but sometimes

the bosses are going, I don't know, maybe I need a younger person in here, more willing to adapt. So I think that's a bit of a societal dilemma as well.

Dr. Nicole Smith, Georgetown University CEW:

That's a great point. Let me speak to that bias. So it is a bias, and it is frankly against the law to discriminate based on age, it's a protected group, but it happens, especially in smaller organizations where it's much more difficult to push the envelope and to demonstrate that you are a victim of age discrimination. But baby boomers, again, have this wealth of information, and this wealth of training and experience, that is going to be felt if they were ever to leave the workforce on mass.

I think in some ways the COVID-19 pandemic was a little bit of a precursor of what that could mean, because the baby boomers were the most vulnerable of the age groups and so required to pull themselves away. If you think of all the bus drivers and all the people in MTA who just said, hey, my health and my life is at risk, I'm going to pull out, even if it's temporarily. And we found that SEPTA, New York, those are the examples that I have at my fingertips, had to offer incentives to try to get them to come back out, financial incentives, to train the next sets of workers to do that job. So that ageism is discriminatory, and it's really going to bite a lot of us if you continue to do that.

But I think that there's a lot of discrimination that millennials and younger workforce face as well, 'cause there's this notion that they tend to be very self-indulgent and the work, or the job that they do, is secondary to their life balance. It's more like-life balance more than life-work balance. So there's some discrimination there, where people might feel, I don't know, I hired this person and I'm not going to be able to see them when the going gets tough because they'll definitely prioritize life over work, and we know the baby boomers have not done that. Baby boomers, to some extent, were the ones who created the problem with work-life balance from working all those extra hours and creating that idea of how you should work.

So I take your point about ageism and that perception, but I think it's going to be difficult, especially in this tight labor market, especially when it's hard to find those workers, to exercise any of that power over them, because you're really going to lose out and feel it in the bottom line.

Ramona Schindelheim, WorkingNation editor-in-chief:

I concede to your point as well, there is bias against millennials for exact reasons you say, and I really do hate that, again, as a society, that we do lump everybody into different categories like this, because it's an individual thing, it's a person's own makeup as whether or not they are up to the job or not, no matter what their age is, and where their commitment is, and what their skills are. And so, I reject all of this, let's stop being biased. Let's make sure that people have those opportunities, no matter what their age, young or old. My little high horse that I get on, but I'm sincere about it too. I really feel like we need to address this, and really just address people for who they are and the skills they bring to a job.

Dr. Nicole Smith, Georgetown University CEW:

Absolutely. And don't forget the original biases, which were gender bias, women in the workforce.

Ramona Schindelheim, WorkingNation editor-in-chief:

So wrapping this up, do you have any advice for workers, job seekers, on where they should be looking for the jobs of the future or what they should be doing now? We've talked a little bit about it, but give me your final thoughts on it.

Dr. Nicole Smith, Georgetown University CEW:

So words of advice, who's looking for jobs of the future, anyone who's working now, they're in the job of the future. If you are in college, I think you might be thinking, if you're a college student and you're 100% enrolled, you might be thinking of, okay, how can I position myself so when I jump out there, I can get the best thing that's possible? Because they're at a disadvantage. There's many jobs asking for experience, but not allowing you to have the experience to get the experience, so they have that added disadvantage. And any words of wisdom I would offer to the young college grads is get an internship, hopefully paid, of course, in your field of study, so that you can obtain those firms-specific knowledge, so that by the time you actually graduate, you come in there with a little edge and you know what's required of that job, you know what the nature of that job, and the office culture. And those are the things, those soft intangibles, that you learn on the job while you can't get that in a classroom at a distance.

And I think for the adult workers, the more mature workers, don't close your eyes and your ears to lifelong learning. I think all of these things are done incrementally, and perhaps just the extra couple of months to re-up in a certification can go a long way to make you much more marketable than the next person. So if we are just emotionally open to the notion of going back to school, not necessarily sitting in the classroom, but just getting the extra certification to get that job, then that's useful.

And I think my very last point would be to employers, that they themselves have to recognize that you need to invest in your human capital. Machines break down, you pay to get them fixed. Your human capital is your resource, your human resource. You have to make sure that they are always equipped, pay for the training so that they can get that 2.0 and add to the bottom line of your business.

Ramona Schindelheim, WorkingNation editor-in-chief:

Nicole, thank you so much for talking about this subject, and your report is great, and I love your insight around it, so thank you so much.

Dr. Nicole Smith, Georgetown University CEW:

Thank you so much for having me, Ramona.

Ramona Schindelheim, WorkingNation editor-in-chief:

I've been speaking with Dr. Nicole Smith, the Georgetown University Center on Education and Workforce, their chief economist, and co-author of the new report, After Everything, which you can see on our website. I'm Ramona Schindelheim, editor-in-chief of Working Nation. Thank you for listening.