GW: Welcome to our Beyond the Resume podcast series. I'm your host, George Westerman. Today I'm delighted to be able to talk with Roy Swift, who's executive director of Workcred, a group that's working to achieve a labor market that relies on the relevance, quality, and value of workforce credentials. Welcome, Roy.

RS: I'm so glad to be here. This is such an important topic to everyone these days.

GW: Well, fantastic. You've certainly been doing a lot in this space too. Why don't we start? You've done a lot of things in your career. How did you get into the credential space?

RS: Well, I come out of health care. So as you know, in health care, everybody has to have initials after their name or they can't perform, right? And so it really did help me understand how important credentials are, not only for the individual, but for the consumer who may interact with a professional who has the credentials, understanding what the competencies are of that particular credential.

And of course, I was in the Army medical department I ended up in the Army Surgeon General's office, chief of the Army medical specialist corps, which is PTOT, dietetics, and physician assistants. And the military is very geared to competency-based credentials, their own credentials, and how that important. And for instance, when you go into a leadership position, the military would never put you in that position until they have given you leadership training appropriate to that level. And so I have grown up in systems that is extremely important of looking at credentials and being transparent about the competencies that one has when you hold those kind of credentials.

GW: Well, great. And certainly, those credentials, we need more of them in the space. But at the same time, we have a lot of them out there. You see some groups are collecting-- well, actually, Roy, let me just ask you. What's the latest number from Credential Engine? Is it 1.5 million?

RS: Well, Credential Engine says over 8,000. I'm not sure that's a real accurate number. Nobody knows for sure because there's credentials being developed on a weekly basis practically. But let's just say there are a huge amount of industry certifications, and then assessment-based certificates.

The professional societies, which we don't often look at, probably produce at least 50% of the assessment-based certificate programs that help people get jobs. These certificates aren't just out of academia in this regard.

So one of my real concerns, as we look at credentials in this country, is that we don't understand the credentialing system. I have this very famous diagram that I created that helps us look. Some people don't feel that we do have a system of credentialing, but we do. It may be dysfunctional, but it is a system. And understanding the system and being able to intervene to improve the system I think is a very important concept, which involves the professional societies, the federation boards, the state licensure, the federal government.

And they're all connected in some regard. Some have federal connections. Some do not. Some are strictly professionally oriented. And then some are fairly academic oriented. So understanding the system and how we can improve it is something that I think needs much more attention in this country.

GW: There are a lot of credentials out there. And Credential Engine has identified more than a million unique credentials in the US alone. But there are all kinds of them out there. Can you talk about some of the ones that are out there, and that'll set up what you just did, right? So you don't need to answer that. You already did, right? So no problem.

RS: The blocks on the picture has the professional societies-- who, by the way, dictate when they accredit programmatic accreditation. They dictate to the universities what the content has to be for those nursing programs, those business programs, those engineering programs kind of thing.

And then they also have industry certifications. Some are outside of the professional society block, but some are inside, but they have to be firewalled away from membership and education, the certification one.

And then we have state licensure. And it's not mutually exclusive either, because some of the licenses require passing of a national certification exam.

And let's take the federal government, OSHA. They create many of their requirements to certify crane operators. And then that is put down, and the certification bodies that exist for that have to make sure those are integrated. And then, in their case, they also have to be in some states-- not all-- have to be licensed in the state to operate. And then there is also a sort of a reevaluation by the contractor, the employer.

So you can see, here, it involves many blocks in this regard. And so there are many blocks to this-- certainly academia, with all its-- because after all, degrees are credentials. They're part of the system. But they're only one block of the system, which we often forget, that produce credentials.

So we had the bootcamps. We have apprenticeships. Sometimes apprenticeships, as you know, are pretty much getting involved. Community colleges, these days. And frankly, at the professional level, at the universities, we're starting to see that, like in nurse educator and a few other things. But I might add that in these 1 million, it's a buyer beware environment, because there are a lot of bad credentials that get you nowhere. And so understanding the characteristics of the type of credential you're going for, and who has endorsed it, and how embedded it is from industry, are certain important elements for the consumer to understand in making a choice of these many, many, many. Because it is very, very confusing, and many times people lose money taking on a credential that has no value.

GW: So that actually leads to a question, Roy. Our research with manufacturers found that the manufacturers prefer a credential over an associate's degree when they're hiring their technicians. Why would that be? Does that match with what you see in other places?

RS: Yes, because even in our research it's even worse. They say the only two things they value is experience and training from the equipment provider. And they don't even mention post-secondary education kind of thing.

I think one of the issues is that it's not that the community college, post-secondary education doesn't maybe could provide something, but it's not transparent. It's not understood. And unfortunately, in some of our research, there are indications that people come to them and do not have the skills and competencies as advertised from their particular credential. And that is a major problem.

More research is needed, but we think that the lack of effective and accurate assessment of competencies is one of the issues. The content may have been presented, but the assessment was weak, and it did not verify that the person did indeed acquire that knowledge or skill.

GW: That's why doctors have to take a board exam, not just get their degree.

RS: Exactly. Exactly.

GW: It's interesting. Our research found the same thing you did. They value the experience first, then the certification second, and the third was the associate's degree. But when we asked them about specific certifications, it tended to be the vendor certifications. The broader things from the society, those ones were less demanded. And what we heard was there are just so many of them, they can't demand it. And they don't know what to do with them.

RS: Absolutely. And they don't really know what the possibilities are. In our latest research, which will be published next month, I think-- you will see it-- with Manufacturing Extension Partnership out of NIST, we found that many times upper management didn't even understand what credentials their employees had. There's no tracking of this. And so sometimes employees are underutilized because of that. They don't realize. And then also, it presents a morale problem in that the employees say, well, I have this credential but it's not valued. And so there are many issues as to why we've got to develop more of a system for the manufacturing world to understand credentials, what they could do or does not do for them in this regard.

GW: One of the things that I remember most about the first time we met is one slide you showed which talked about the different kinds of credentials that are out there. And I thought it was just so clean and elegant, and it stuck with me. Can you kind of walk through what are the different kinds of credentials?

RS: Sure. I'll do the most common. I mean, there are all sorts and various variations. But particularly the word "certificate" and "certification," because it seems like it's the same, is used interchangeably all the time. And actually the word "credential."

And something that is really a problem, we would say, oh, I have a credential. Well, you have to peel the onion another time and say what kind of credential do you have? Is it a certificate? Is it a certification? Is it a license? Is it a boot camp certificate? Is it an apprenticeship certificate? What is it kind of thing.

I say that credentials are a garbage can term in that it doesn't mean anything. You've got to peel the onion a couple of times to figure out what is it that the person has, because credential means everything. It's an umbrella term.

A certificate generally is an educational type of certificate, and it may be certificate of participation. They just participated in it. A certificate of completion. They required and finished all the requirements. But you don't know whether they did it good, bad, or indifferent.

And then there's assessment-based certificate, where there is actually an assessment generally of a competency-based certificate. So it's measurable and easily evaluated. And it's generally forever, although under ASTM 2659 standards, standard practice for certificate programs, that particular national standard requires an expiry date on the certificate. Most certificates do not have a-- it's like a degree. You get a degree and it's forever.

Now certification is not an educational type of credential. It's strictly an assessment type of credential. And it may require, as prerequisite, certain training, and even other certifications sometimes. But it has nothing to do-- it's strictly going.

And it's focused on the job. The job task analysis is used to go into the practitioners who actually do the work, and validate that, sometimes on different scales about what's the frequency that task is done, what's the importance of that task. Is there criticality? And if we're looking at more than one level of professional, we're talking about role delineation kind of a thing.

And it is all about building a standard examination that has validity and reliability. That's very different than a teacher-prepared assessment tool in academia or even in the professional societies, but many times professional societies are doing what we call criterion referenced things-- pass/fail kind of thing. So there is some measurement to that.

And then, certification does not exist for a lifetime. You must recertify for all in the intervals. And it varies with professional on the criticality of the information and how fast things change. And then the third component is the ability to take it away, either for unethical reasons-- if there is a code of conduct-- and secondly, proven incompetence.

So the three elements of certification is the building of the standardized exam, the building of a recertification for continued competence, and the ability to take it away. That's very different than an educational certificate, as you can hear.

License is certainly-- there's federal licenses and state licenses. But as I mentioned earlier, sometimes state licenses are attached to national certifications. If you pass the national certification, it's just an administrative process at the state level that license you. They rely on the national certification exams-- probably too much at times. They should probably do better evaluations. But that's the connection between those two. And of course, everybody knows what a degree is.

GW: It's interesting. Way back to my doctoral programs, we learned that if you have a really complex space, the first thing to do is name the categories and then look at the connections between the categories, and from there that will lead you to better theory. And that's what you've done, right? You've named the categories, talked some of the connections.

RS: That's right.

GW: If you think about doctors, for example, they'll have a BS degree, which is a certificate of some kind, right? Then they've got their medical training. Then they have to get the full certification, passing the board exam.

But then they need to get licensed in whatever state they're operating in. And then they'll do continuing education, which is certificates. But then they have to recertify every 10 years. So these things all go together for the same occupation.

RS: Absolutely. Absolutely. And the way-- the turnover of knowledge and skills, the technology, the AI that people are starting to talk about now, all are going to affect making the recertification programs much more important, about whether somebody has continually updated their knowledges and skills.

GW: Well, that leads to a really interesting question I've been wanting to ask you, really, is in the academic, the workforce circles, we hear this idea of stackable credentials. People throw that word around all over the place. And they mean very different things, sometimes to the same person, depending when they're being said, You've been doing some work, several projects on being really systematic in thinking about what are these stackable credentials. How do you do them well? Can you share some of the things you've learned?

RS: Yes, I think stackable credentials is used too loosely most of the time. Most of the time, they're stacking credentials that have general descriptions, so they have no idea what the major overlap is. When you're going to stack, I think it's absolutely essential that it's based on competency-based education, so that you can stack appropriately, and you don't go three steps forward, two steps back, five steps forward, two steps back, that you actually are able to stack them, and people can move ahead without having to go backwards for a period of time.

So I think the importance-- and this is where assessment comes in, again, too, is not only competency-based but assessment-based competencies for assessment, so that when they go to the next particular credential, they are well prepared, and we don't set them up for failure. This, when the stacking is done poorly, we're setting people up for failure, because they don't have the background and the prerequisite to go to the next level.

This is especially important in the career, in the US, the community college environment, because there is this goal to get the two-year degree, but at the same time, you take a few courses and you can get a better job. And the idea of the stackable credentials allows on ramps and off ramps into these programs-- if they're done right. But they're often not done right. So where are you seeing this being done well?

Well, I think those that are geared to looking at skill development. We're certainly working with the University of Texas system in regard to looking at micro-credentials. That's the ding-dong word now. Everybody's got to have a micro-credential.

They tend to be skills oriented, but often they may or may not be validated by industry, which is extremely important. And they need to have a strong assessment, as I mentioned in the other things. And they generally are a bundling sometimes of skills from various courses, or creating a new one that is in line with the degree pathway.

Unfortunately, because of our system in this country today, getting that on the transcript and being transparent is another issue that-- and the employer doesn't even see that sometimes. And so I know that they're working on that kind of an approach.

GW: Unfortunately, I think it's going to be one of those fads again, that, unfortunately, some will do it well and some will not do it well, unfortunately, because I think it's being used as a recruitment tool also, to say, hey, we have micro-credentials that'll help you get jobs.

RS: Well, this is the other problem. Very few studies on outcomes in regard to this initiative-- and some are starting to do it. And certainly the projects we have with community colleges, Workcred does, outcomes is very much part of the research, that embedding a certification into a degree pathway, does that change the outcome of that degree pathway or not? And if it doesn't, then we need to rethink.

But the studies are very far and few between. And so we have very poor outcome data of all these fads that are going on. Everybody just wants to do them, and then advertise them, and then not really evaluate them for what they're really doing.

GW: It's really interesting too, you also had the inertia, right, that you have, even if it is a good idea, and even if the deans and the workforce people think it's a good idea, the professors may have a different viewpoint on do I need to change what I'm teaching, and do I need to teach to the test. And the other thing we hear unspoken is, well, what if people pass my course but don't pass the certification. What does that say about me?

RS: Yes, yes, yes.

GW: So there are some broader systemic changes that need to happen in the institutions also.

RS: Absolutely. And it does bring more accountability to it, because of that. And certainly it's done in health care. Health care, most of the health professions do get results on their particular class, if they're large enough, to report the results of their pass rate. And of course, many of the schools that have a 99% pass rate or a 95% pass rate, of course, advertise that. You come to our school and you can make sure 95% chance of passing that exam.

But I do think that it is one in which increased accountability is going to be the thing in higher education this-- I know, working with the Higher Learning Commission, they're very concerned about how we integrate credentials together, and what their role should be in identifying did they

choose a quality credential when they put it in the pathway, and what was the rationale, and the data that they used to choose that particular credential. So accreditation would never say, you have to do it like this. But they will then evaluate the process by which quality is determined. And I think that's going to be another jailbreaker-- I mean, not jailbreaker but--

GW: Deal breaker.

RS: Yeah, you're right. It's a deal breaker.

And the other issue with this is that in some of our studies that we did, faculty was saying, you've forgotten about our continuing professional education. It happened in the cybersecurity arena, where the faculty were saying, we may not have the knowledge and skills to prepare them for some of these new cyber-security certifications. And so that raised a red flag for me about what are the universities really doing for their faculty? They're assuming they're always keeping up, but they may not have the funds and the resources to always keep up with this sort of thing.

GW: It is interesting. One of the many certifications require that you had to be taught by somebody who's already certified.

RS: Yeah, right.

GW: And you can certainly, as faculty, we all keep up with the research, and we all do our own research. But if you have to take a course and pay for the certification, in a lot of schools, that's a personal cost rather than something the school would pick up.

RS: Absolutely. Absolutely.

GW: Interesting point. Are apprenticeships an answer in this space? Because apprenticeships try to line up gaining the job skills, with gaining the work experience, with also having the academic learning. Can they be a way to make these stackable credential pathways work?

RS: If they're competency-based. Sometimes apprenticeships are time-based, and that-- I think that's problematic, because-- I won't name any organizations, but they say, you've got to do these three years no matter what, where competency-based apprenticeships can shorten that period of time if the person is able to accomplish those in a shorter period of time than designated. I think apprenticeships are supplemental because of its intensity that it takes for preceptors, and getting industry to help find individuals who are willing to be preceptors, and facilitate learning in that manner.

And then there is a body of knowledge. People don't understand that, but there's a body of knowledge about how learning occurs in a work environment. It's different than the classroom, where they're just kind of dumping information onto the individual, which we know is only 10% that they get from that.

So I think that certainly apprenticeship is good for a certain sector type of people, about how people learn, and certainly should be another avenue of creating a certificate. And the programs that I'm doing with Dallas College, because it was geared under the IRAP, which is no longer recognized by the Department of Labor, but it has to capstone with an industry certification, and it must be competency-based. And unfortunately, politics got in the way of what some of the good things about non-registered apprenticeships. But hopefully we'll be able to take the good and try to use it use it in the future.

GW: OK. You've talked about skills a lot, and how important that is in this certification space. What about the non-technical skills-- what we call the human skills? The skills that help you thrive, to help you move between jobs, help you work in organizations. Have you seen people certifying those skills, and do you think we'll get there?

RS: Well, I have. There are people like ETS, I think, is working on it. The Education Design Lab is working on the 21st-century skills kind of a thing.

But I am skeptical of some of these assessment tools, because I think it is such a-- it's an experiential type of competency, and it's hard to capture and measure that in an exam of some sort kind of a thing.

But I do think it's 50% of job success. So if it's 50% of job success, then we should be trying to look at it.

And I think that's why the three-legged stool for professions still holds up, that a profession should have an academic preparation. They should have a clinical component or experiential component. And that's where the interpersonal skills, the problem solving, critical thinking, team building, that's where it should be involved-- in the context of which people are working. And then the third-party external certification license, whatever it is.

So that three-legged stool really does triangulate to build quality in a credential. And I think we need to go back and look at that, how important that is.

GW: So as we've been doing our work, we think about the three-and-a-half challenges facing organizations and individuals for workforce learning. And the three challenges are very individually and company-focused. They are career navigation, helping people understand what the next possible steps are from where they're going. Number two is agile approaches to learning, so they can get the skills they need quickly, rather than a full two more years, or four years. And three is some way of showing, some way of certifying the skills that they have so that can be currency in the labor market.

So those three-- the career navigation, the agile learning, the certifying skills are the three. And then the half, it's not really a half, because it's really hard, but it's the background that this lives on top of, which is good skill frameworks out there.

In talking to you, it feels like certifications have a role in all of those. What do you think?

RS: I do, because of the extent that they work on identifying skills through their job task analysis. They validate. That's one of the things that we noticed in our research study that we did with APSIA and APLU, is that the understanding of what a validated competency is between academia and the certification bodies is quite different. And I think that the certification community, because of the domains and the competencies-- which is knowledge, skills, and abilities-- a competency has all those three bundles-- that they could contribute to a skills database of some sort related to specific occupations in their particular area-- skill bundles. And in some respects, they probably should be looking at micro-certifications, where they just take a certain domain and validate that the person has those particular skills.

It would be a very different approach, and the psychometricians won't like it, because it's probably-- they think it's not big enough to measure kind of a thing. But I think it has a practicality component to it that would be worthwhile.

GW: OK. Well, thank you. So Roy, just a last question for you here. You have a vision where the job market-- the labor market, sorry-- you have a vision where we rely much more on certifications in the world, from education to the labor market. What's it going to take to make that vision happen?

RS: I think one of the issues is that there is no national database with non-degree credentials in this country. There is a national database for higher education-- the National Student Clearinghouse. And we are exploring the whole idea of a non-degree national database with Strada these days, about whether that can be built, and then the data between both databases would be put together to identify appropriate career-- what are successful career pathways.

And until that happens, I think that it's going to be slow progress, because there is no third-party data proving the value of certifications. We have anecdotal information. We certainly have the studies that each certification body does on their own. But like the federal government says, well, that's their opinion. Where is the third-party data that tells us that these are value, and it produces good results, and effective results, and good jobs?

So I hope that we'll begin working on that in the future. Strada is very positive about this, so I'm hoping that this will work out, and Workcred will be an important part of that.

GW: And when you talk about a national database of non-degree certifications, it goes beyond, then, what the Credential Engine does, where they've identified what these are. It sounds like you're saying of a database--

RS: Yeah, yeah, this is--

GW: --who holds what certification, right?

RS: Yeah, yeah, this is individual data. This is individual data, not the descriptive of the credential, which is what Credential Engine's all about. I helped create Credential Engine, as you know.

GW: That's right. And you know, it's interesting, because we are starting to get a lot of really interesting, good research from the colleges compiling anonymous data on their graduates and being able to follow it.

RS: Right.

GW: Right, this does not exist for the non-degree situation.

RS: No, the Association of Certificates-- frankly, we don't think APSIA's information is in that National Student Clearinghouse either. And then the certifications. And then, frankly, if we can get licensing-- I don't know if that's going to be able to do. But all the non-degree kind of credentials, which is 50%. So, basically, we have no understanding of 50% of the credentials in this country.

GW: It's amazing. It's a good goal to shoot for, and lots of work for everybody to do.

RS: Exactly. Exactly.

GW: Well, Roy, I want to thank you for sharing your insights here on our podcast. It's always great to talk to you. And I also want to thank you, our listeners, for being with us for another episode of our Beyond the Resume podcast series. If you have any questions or any comments, you can always contact us at gof-info@mit.edu. Thanks, and have a good day.