

Work in Progress Episode 239: Dr. Mardy Leathers, Director, Missouri Department of Higher Education and Workforce Development

Ramona Schindelheim, WorkingNation editor-in-chief:

You're listening to Work in Progress. I'm Ramona Schindelheim, Editor-in-Chief of WorkingNation. Work in Progress explores the rapidly changing workplace through conversations with innovators, educators, and decision makers, people with solutions to today's workforce challenges.

Ramona Schindelheim, WorkingNation editor-in-chief:

The state of Missouri recently launched a virtual career-focused program for high school students, one that offers the industry recognized credentials for high-demand jobs in the state. Dr. Mardy Leathers is the director of the Missouri Department of Higher Education and Workforce Development and he's here to talk to me about Launch Missouri's Workforce. Mardy, good to see you again.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Great to see you. Thanks for having me.

Ramona Schindelheim, WorkingNation editor-in-chief:

My pleasure. I love talking to you and following what you're doing, because I always feel like Missouri is really working to change the way Workforce Development is handled on a state level and get people back to work. Last time we talked, we were talking about how you were offering free courses from Coursera to everybody who was unemployed. I'll get back to where we're at on the state of unemployment and Workforce Development in a few minutes. But I do want people to know about Launch Missouri's Workforce, because what I've read about it seems very exciting. So why don't you tell me in general, what is the program about?

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Well, we are very excited about the program, as well. This is a program that allows any Missouri high school student who is a junior or senior, who participates in virtual learning. So maybe they're homeschooled, or maybe they do not have access to participate in more of a traditional physical learning environment. In Missouri, there's about 20,000 students who participate in these programs throughout the public school system. All the public schools in Missouri have to provide a virtual learning option. So one area, though, that had been missing over the years was career and technical education programming.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Many will say, "How can you offer career and technical education? It's competency based. It's hands-on learning. How could you do this virtually?" Well, we see it as really the opposite of that. We see it as an opportunity to increase access for those that are interested in career and technical education fields, interested in exploring industry-recognized credential opportunities that who otherwise would not have, would have a barrier by simply not being in any physical classroom. Certainly, this does not supplant hands-on, in person learning, but what it does is it allows anything that can be done virtually can be now done ahead of time. Then you can conduct a lab exercises or other workshops in addition to, to supplement the training.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

So we're really excited. We think this is about 1,600 students this year. We hope to serve as many as 3,000 students in year two and forward. These will be Missouri high school juniors and seniors

interested in participating in career technical education. By the way, 65% of Missouri students are participating in at least one career or technical education course while they're in high school. So it's very popular. We've done a really great job, I think in Missouri, to promote the value of career and technical education. Now this allows us to bring it to those who can't be in a physical classroom.

Ramona Schindelheim, WorkingNation editor-in-chief:

So this is 11 industries that you're looking at. What are some of the industries and how did you decide these are the ones we're going to offer virtually?

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

So we look across Missouri's industry clusters. We use economic development data. We know the industry sectors that are most prevalent Missouri. Missouri's a pretty diverse state. We're a Midwestern state, we're right in the middle of the country. So transportation logistics is a big deal. Aerospace, we have Boeing, we're a big defense contractor. Most of the Boeing defense planes are created right here in St. Louis. But we also look at healthcare. We look at technology jobs, both on the IT side, but also across all sectors, as now technology roles, whether it's cybersecurity or networking or a managed services, help desk. Those cross all sectors. Education. What we want to be able to do is say these are the industry sectors that are prevalent in Missouri. If you are going to live and work in Missouri, we want to make sure you have the tools and opportunity to be successful. We now believe that this will help us be another arrow in our quiver to help empower and skill up Missouri youth.

Ramona Schindelheim, WorkingNation editor-in-chief:

For example, Boeing they're in the state. I remember we talked about that before, how big aerospace is. So manufacturing is there. If I was a student and I'm looking at this virtual course, what would I see? How long would it take and how do I get that hands-on experience?

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

One of four jobs in Missouri are actually in manufacturing. Missouri's still a very heavy manufacturing state. We support auto sector, but primarily aerospace and not just with the OEMs, we have our tier two suppliers, a lot of high density of shops that are supporting all the components that go into our automobiles and our fighter jets and our commercial aircraft.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

But if I'm a student and I'm participating in one of these programs, maybe I'm interested in industrial maintenance. Well, there's a lot of things I can up front. For instance, I can conduct the workplace safety coursework. So I can receive my OSHA 10 general industry certification. I can do that now, virtually and by participating in classroom activity that is provided online. The other things I can do is I can learn the shop math that I need to have, or blueprints, drafting, design, all those things that I'm going to probably be using a computer in the classroom for anyway, I can now do at home.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Now, if we're talking about hydraulics, pneumatics, or PLCs, and I actually have to sit down at a table and reconstruct a programmable logic control system it's hard to do that on a computer. However, what we have is we have simulated environments, we're able to use VR technology to simulate what that will look like. So we can troubleshoot on the computer in the classroom and then later there will be a

workshop set up where those students can then come to a community college classroom, they can go to a high school classroom, and they actually sit down and say, "Now I'm going to do the things that I you know was doing online."

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

What's also cool, if you think about a lot of our career technical education courses, welding is another great example of we're using virtual welding machines to prepare students for welding. It may be four or six weeks even into the program before they're actually using a welding machine, because they're going to do a lot virtually first. While all of this now can be done from home, all of this now can be done online using tools to help prepare that student before they go into that live interaction.

Ramona Schindelheim, WorkingNation editor-in-chief:

Yeah. I heard someone else saying the value of virtual learning. Some of the VR is you can tell people ahead of time, just how heavy maybe an engine's going to be if you're going to be trying to work with it and you're going to have fewer injuries.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

That's absolutely right. It increases occupational safety. It helps you learn all the fundamentals of doing the work. Again, there's a lot of data, a lot of science behind how virtual learning, those simulations better prepare someone before they go through the first time with the hands-on aspects

Ramona Schindelheim, WorkingNation editor-in-chief:

You mentioned, then maybe there'd be a lab. So how long is this kind of pathway for someone?

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

So this will follow a traditional career technical education certification pathway just as if you were in an in-person physical environment. So whether you are working on a... In Missouri, we have a career and technical education certificate that you can receive. That's one of the pathways just like you'd have a college preparatory certificate if you're wanting to transfer from high school, right into a community college or a four year university. So what we are able to also do is during the semester you're taking a course, it's the traditional 16 or 18-weeks from the high school calendar. Along that way, though, you're going to have some measurable skills gains, you're going to earn industry-recognized credentials. It takes the modules, it breaks them up. So at the end of a semester, you may complete a course in industrial maintenance, but you may have one or two industry credentials, in addition to having gone through that coursework. It does follow a very standard curriculum that you would have in a physical environment, you're just doing most of it virtual.

Ramona Schindelheim, WorkingNation editor-in-chief:

So at the end, as you say, you could have multiple credentials. You've been working with the industries, the businesses in your state to kind of say, "This is what we need." Again, tell me some of the other pathways. I think you had mentioned IT, but are there other industries? Any green jobs? Other industries that might be affected?

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Absolutely. So if we're going to stay inside manufacturing for a minute, the green jobs you talk about are very important, right? So if we are producing components that go into wind turbines, EV is certainly a big area that Missouri is looking to position itself in. So there's preparing for those types of roles because managing electric vehicles is a little bit different than operating on some of our combustion engines.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

But outside of that, healthcare is a huge track. Law enforcement is another track, emergency services and public safety to earn certification that then they can complement with that live, in-person activity. Other things, we're looking at teaching assistant and we're looking at child development associates. I mean, certainly childcare is a big issue everywhere. So if we can help individuals prepare for, maybe they want to be on a pathway to become a teacher, but along that journey, they want to be being experienced as a teaching assistant or someone who is working in a childcare facility that these credentials now will be available to help them along that pathway.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Construction is another area. Now it's very hard to do some construction, but we will have some coursework in construction. We'll have a lot of ag. Of course, finances, another big sector in Missouri financial services. Those are all areas where we're saying curriculum exists and curriculum can be developed to prepare students for careers in these areas.

Ramona Schindelheim, WorkingNation editor-in-chief:

I think a lot of people don't realize just how much technology is being used in agriculture these days.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Oh, absolutely.

Ramona Schindelheim, WorkingNation editor-in-chief:

Some of that, again, you could learn online before you actually go out in the field. I always love to use the example of drones being used to go out to the back 40, to pick up soil samples, bring them back to you, cut down the amount of time it takes for you to figure that out, what you need to do in that field.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Missouri is the number three cattle state in the United States. Drones are a great way to go find cattle. Cattle are always... Especially in our harsh weather, whether it's really hot or really cold, our farmers are using drones to go out and locate cattle to make sure they're safe and they're accounted for. We also see survey crews now using drones. So it really has changed the game in big ways.

Ramona Schindelheim, WorkingNation editor-in-chief:

In terms of demographics, male, female? Is it fairly evenly divided or are you getting more boys than girls coming into these classes?

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

You know, we traditionally still have a lot of males participating in what we'd call the "dirty careers," right? Construction, welding, industrial maintenance, but we're seeing a lot of breakthrough in

healthcare and technology across the board, regardless of gender. We look at equity and we say, we want an equal opportunity for all. Right? So how do we increase access no matter who you are to participate? That goes by not just your gender, but obviously it goes race, but it also goes where you live. You know, whether you're in an urban environment or a rural environment, whether you have access to broadband or don't like. All these are, frankly, equity issues. So this hopefully balances that out and helps create equal opportunity for everyone.

Ramona Schindelheim, WorkingNation editor-in-chief:

So this is for high school students. Do you have anything similar that can be offered to young adults or adults? Some kind of programming that would help them get into these fields as well?

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

So this is just the beginning. Certainly, this will be the most comprehensive approach so far across multiple sectors. We do have partnership with our community colleges, though, a number of current technical education coursework that's provided virtually. Then we provide a number of industry-recognized credentials.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

I'll pick on technology because many are familiar with CompTIA. But in Missouri, we've made CompTIA certifications available for any Missourian who's interested in an A+ certification, which that's your help desk or your managed services. We have a Network+ for network administration, we have Security+ for cybersecurity, Data+ for data analysis, Project+ for project management. These are all things where you can earn industry credentials anywhere between six and 18 weeks, depending on the course, and be, frankly, higher before you even start before you complete, in most cases.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Yes. We think this is the beginning to build a trend where again, it's not meant to replace what we're doing now, but what we're doing now, we know isn't enough and it isn't for everyone. So how do we supplement and increase opportunity and access by making it more readily available through this omnichannel, multimodality framework?

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Because traditionally, how we deliver education is based on what's easiest for us as those that are delivering the education. The reality is, it's all about consumption. How do students and workers choose to consume? And how do they prefer to consume a job training program or an industry-recognized credential or an educational program? That's really the framework that we're following.

Ramona Schindelheim, WorkingNation editor-in-chief:

I mentioned at the top of the conversation that when we spoke last and I looked it up, it was July of 2020. Missouri, like many other states, everybody was hit hard by the pandemic, job loss. How far back have you come? How are you guys doing?

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

We've restaffed about 94% of all the jobs that we lost during the pandemic. We are at 40-year lows for unemployment. Our U-3 is at 2.8%, that equates about 82,000 Missourians so are currently receiving an

unemployment benefit. That's from a peak of nearly 800,000 Missourians in the onslaught of the pandemic.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

So we've come a long way. You know, we learned a lot through that process. We learned what can work, we learned doesn't work. I think a few key things that have stayed with us is our virtual job fairs. We still have a lot of in-person job fairs, but now we're able to do virtual job fairs, as well. Again, increasing the opportunity for those that can't always attend a job fair at certain time. The virtual hiring by conducting interviews and things like that has really, I think, made it more efficient for employers to conduct interviews.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

We have Coursera coursework available. We launched it during the pandemic, we just renewed our contract for year three. Any Missourian who's over the age of 18 and eligible work in the United States has access to a 12-month license for Coursera. All they have to do is enroll in the program. That's really great, we're finding for incumbent workers, for individuals that are working, but want to skill up. For instance, in Missouri, 94% of all of our job postings, of which there's about 218,000, Microsoft Excel is in the job description, right? So if you haven't taken an Excel class a while, or you want to beef up? Guess what Coursera can help you do that. Maybe you'll need to learn how to manage a remote team. Guess what for Coursera can help you do that.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

So what we've tried to do is democratize access to skill development by a number of ways, whether it's through our CompTIA certifications through our partnership with our community colleges, our apprenticeship expansion. Certainly, Launch Missouri's Workforce is a big part of that. We see it as a way to continue to increase the different options available for Missouri citizens who want to skill up and grow in their careers.

Ramona Schindelheim, WorkingNation editor-in-chief:

You know, you're talking about people who can maybe skill up. We talk a lot about older workers at WorkingNation. I saw stat today that 90% of the programs that are out there to upskill people, to help them get the skills they need today, are not really geared toward older workers. Also, I just recently did a podcast with someone who was saying how important some of the career guidance and counseling can be to help get an unemployed, older worker back into the workforce. I was curious on your thoughts on that, if there was anything that you're doing special in Missouri.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

No, you're absolutely right about that. So, one, we've focused with AARP to bring some of their resources in our job centers. A lot of that is with the career coaching, the career exploration, the career preparation. Then we've designed a number of workshops, one that's called Missouri Job Ready, Day One that we're launching. That is intended to help individuals who have been out of work a period of time, or, who are looking to make a pretty significant transition from maybe one sector to another.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

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In Missouri as we look at our population like everyone else, we continue to have an aging workforce. In the last census, 58% of our population growth was over the age of 65. So we know that those individuals, though, still are choosing to work in many cases, need to work, unfortunately, especially with inflation. So we need to continue to provide services for those individuals. So we're working with our community partners to think about how we can design custom solutions, really, for those. Really at a community level, because what we found is there's not really a one size fits all, but there's an opportunity at the community level to engage.

Ramona Schindelheim, WorkingNation editor-in-chief:

It sounds like you're doing some very innovative, very important programs that are really personal. You're government agency, but it feels like you've got a really personal stake in this and that's something that we don't hear talked about very much.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Yeah. You know, I know our approach is putting the citizen first and understanding the needs of the citizen. We know that we cannot develop and cultivate a resilient economy, a resilient state without supporting our citizens, whether they're in work or out of work. Our focus and our piece to the pie is we certainly care a lot about global citizenship, but we know that we care about labor force participation. And we think that one way to access a life of dignity and broaden economic prosperity is through educational attainment and through labor force participation.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

We look at those two things and say, those are our two big bolts, right? How do we help more Missourians access opportunity through skills and education? And how do we help more Missourians access work and stay in work? That is personal to us, right? That is at the human level of trying to understand that there's no one need that is greater than any other and that we have to find ways that we can to support all that we can. It's never done. It's never easy. Frankly, it's why I believe we have public resources, for these sorts of things.

Ramona Schindelheim, WorkingNation editor-in-chief:

So Marty, I'm always watching what you put out on LinkedIn. I encourage everybody else to, because I think the way your state is approaching the workforce issue, the skills issue is worth duplicating around the country. So thank you.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Thank you.

Ramona Schindelheim, WorkingNation editor-in-chief:

Thank you for joining the Work in Progress podcast.

Dr. Mardy Leathers, Director, Missouri Dept. of Higher Education and Workforce Development:

Thank you so much.

Ramona Schindelheim, WorkingNation editor-in-chief:

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I've been speaking to Dr. Mardy Leathers, the director of the Missouri Department of higher Education and Workforce Development. I'm Ramona Schindelheim, Editor-in-Chief of WorkingNation. Thank you for listening.