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Future Forces - Winning through Collaboration

MALE SPEAKER: Leaders in workforce initiatives are developing strategies to redefine training for tomorrow's jobs. This next panel will discuss how specific programs involving collaboration among government, business, and educational institutions are changing the talent system.

Anne Edmunds serves as regional vice president of the Chicago Metro region. She leads all aspects of the operation of Manpower's commercial staffing business in the greater Chicago region. Edmunds is also responsible for the proper alignment and prioritization of region's activities to ensure the attainment of the Manpower's vision, goals, and objectives.

Ladies and gentlemen, Future Forces - Winning through Collaboration. Please welcome Anne Edmunds.

ANNE EDMUNDS: Thank you very much. Thank you very much.

We have a very exciting panel today, and as we had

talked about, I think that the overriding theme here is what is going to happen in the future and with the future of work. Our panel that we've comprised today has already started winning through collaboration, and they've set the stage for future work in the tri-state arena.

I'm very excited about what they're going to share with you. There are definitely best practices around working with academia, working with government, and working with each other to make sure that we are training and upscaling our workforce.

One of the things that we have just come off is a very exciting election year, and we heard quite frequently about bringing jobs back to the United States. We heard about creating new jobs in the United States, but we didn't hear a lot about really collaborating to upscale and train our workforce that we already have. And as our speaker just before us had stated, we don't have enough people to fill the jobs that we currently have.

We have a significant talent shortage. So our esteemed panel will talk about the best practices and what we can do as a team to move the tri-state forward.

I'd like to introduce John Gvozdjak, who is president

and COO of FRANZ manufacturing, and Dr. David Hellmich from Sauk College. Their collaboration in the Sterling Dixon Sauk Valley area is incredible, and they've got a great story to tell.

John, if you'd like to explain what you're doing.

JOHN GVOZKJAK: Yes. Thank you very much, Anne. May I have that clicker?

MS. EDMUNDS: Yes.

MR. GVOZKJAK: Okay. We're going to see if this is going to work from here. I think we're there.

Hello, everybody. John Gvozdjak from FRANZ Manufacturing. FRANZ Manufacturing is located in Sterling, Illinois, which is part of the Sauk Valley region. Talk about regionalism, we identify ourselves as a Sauk Valley region.

FRANZ was established in 1909. It was a hardware manufacturer back then, and today we make bearings; anything that roles has a bearing in it, so the bearing business is huge, but we are very focused on conveyor bearings. So when we talk about the Amazon warehouses that are coming to the state of Illinois and Walmart

distribution centers and other distribution centers, when we talk about logistics, those conveyors that are in those warehouses are hopefully FRANZ Manufacturing bearings that run those rollers there. That's what we make. We've been here since, like I said, 1909.

Just a little audience participation, and this is going to date me, but I'm going to date some of you too. Is there anyone in the audience that remembers the clip-on roller skates that you used to put on your shoes to roller skate around before rollerblades? A number of you.

Okay. So maybe you have a Hustler Speed King Roller Skates somewhere in your closet or in your basement. Hustler Speed King. Those were made by FRANZ Manufacturing, one of the first manufacturers of roller skates in the United States. And those wheels, those steel wheels, and today of course they're rollerblades, but those steel wheels -- and there were four of them on the roller skates -- those steel wheels are called skate wheels, and we still make skate wheels today.

They are used in conveyors. If you think about it, those little wheels, you think about the Pepsi truck. Well, they're in all of the distribution centers too, and

they’re still called skate wheels. They’re in distribution even though that term is no longer used on roller skates. That's just a little part of trivia.

I want to talk a little bit about our region. The region. Where are we? Your megaregion, I think, ends in DeKalb County, and DeKalb County is the home of Northern Illinois University, which is what we consider our four-year regional university that takes care of us, that oversees our economic development. We look to them to provide research for us. We are the region right after that. We’re a part of the Sauk Valley region as I mentioned. It's named after the Native Americans that live there, among them, Chief Black Hawk. It’s a five-county region; probably total population of about 200,000. I want to put context. It extends all the way -- those five counties extend all the way to the Mississippi River.

I will talk a little bit about data. We are a manufacturing region. Total manufacturing employment -- this comes from the NIU Center of Government Studies, which did a study for us in 2013 -- 14 percent of our workforce is manufacturing. Total manufacturing wage is approximately $54,000 versus all employee wage of $35,000.

Manufacturing is valued, and it's in our roots.

Concentration of manufacturing firms, 2.4 times the average. Concentration of manufacturing employees, 3.5 times the average. Our GDP is 21 percent manufacturing versus 12 percent for the state of Illinois. Next slide, please.

This slide here, I'm not going to go through all the lines, but what I'm trying to identify in this slide is we are small businesses out in this area; small manufacturers. We don't have the large mega-manufacturers. Like I said, FRANZ Manufacturing has 100 employees. I don't know that, but I'll say it. We are classified as an SME, small to medium enterprise.

We are the job creators. We are the innovators, and we also need help with our workforce, and we feel, as small manufacturers, that we need to do something about it. With that, we have collaborated with our local community college, Sauk Valley Community College, and we have Dr. David Hellmich here, who is going to talk about the multi-craft internship program that we've worked on with Sauk Valley Community College.

DAVID HELLMICH: Thank you, John.

As a public community college, we really have two missions. One is to provide for transfer, and in that case our customer per se is the upper division, college university, and we do a very good job with transfer. Our students who transfer do as well or better on average than the native students at Northern Illinois University, Western Illinois University, et cetera.

And then we meet the needs of employers, be it in healthcare, criminal justice, or in this case we're talking about manufacturers. And it begins with industry leadership. It's one thing for a CEO of a manufacturing company to understand that he or she has workforce needs as John did at FRANZ. It's another thing for a leader to understand that there's a greater need, and that's what John did.

Frankly, it all begins with that vision. If it were not for that vision, then we as a community college really wouldn't know what needs we are trying to meet. So John got together a group of manufacturers, met with the college, and in 2012, we developed the curriculum talked about there with a multi-craft -- and essentially it creates a generalist, an industrial maintenance generalist.

And then once the person goes into the company, the person can be trained beyond that.

The second thing is that you have to have the faculty. I've worked in community colleges in Florida, Minnesota, Kentucky, and now here, and if you don't have that faculty leadership, there's really no way to meet that industry need. We're lucky at Sauk Valley Community College that we have Professor Steve McPherson who is an expert as far as curriculum, and he teaches really well.

I'm sure we've had situations where you have your folks go in to get trained, and then they come back and say, "Oh, my God. That was horrible. We never want to experience that again." So we have the curriculum expertise, and we also have a person who can teach well.

And then it's the job of the administration to make sure that we follow through. So in 2012, we developed this curriculum working with industry, and then the next slide, we're very excited that last year again under John G's leadership we decided that we wanted to have an extended internship program. We started by looking at the German Chamber model. Quite frankly, we found even though we had some grant dollars to subsidize, it was too expensive, and

it did not meet the curriculum needs that we had because we would have to change the curriculum that we developed with industry.

I came from the Lexington, Kentucky area. I worked at Bluegrass Community and Technical College, and my college there was the inaugural college to work with KY FAME; Kentucky Federation for Advanced Manufacturing Education. We looked at the KY FAME models, the ones used with Toyota, 3M, et cetera. We liked that model except it was a bit too restrictive for the employers, so essentially we took the best of both worlds of the Kentucky Chamber and the KY FAME model, developed our own extended internship model.

Very importantly, the faculty were willing to move their curriculum to be delivered only on Tuesdays and Thursdays so that then students can be on their internship Mondays, Wednesdays, and Fridays. We developed the application process. We developed the selection process by industry, and in less than a year we have students placed in this extended internship program.

We are also working with K12 with the Whiteside Area Career Center, and we are looking for that seamless pathway from high school to community college straight into

industry and even in industry through the extended internship program even before they graduate high school. And that is our time, so let's pass it on.

MS. EDMUNDS: Thank you, John and David.

I'd like to introduce Rebekah Kowalski, Vice President of Global Workforce Practice for Right Management, and she's going to talk about the digital thread.

REBEKAH KOWALSKI: Hi, everyone. Actually, I skipped an important step. Is that better? Excellent.

So I want to talk to you today about what is happening in manufacturing in terms of the digital revolution that we hear a continuing drumbeat on as we look at what's happening in media. Manpower Group Right Management has been a member of this incredibly important institute that is right in the backyard here called the Digital Manufacturing and Design Innovation Institute, or DMDII for short. This is part of Manufacturing USA. This was a White House initiative that was funded to place institutes across North America or across the U.S. with the explicit purpose of making us more competitive in manufacturing globally than we have been for years.

Each of the institutes has a different focus. The

Digital Manufacturing Design Institute is focused on digital manufacturing, and the way that this is structured is there is government funding, and there is also funding from memberships. So this is a private-public integrated approach.

You have tier 1 manufacturers all the way through the SMEs as well as educators. Coming from the technical college system we have one of our fabulous representatives from Gateway; Debbie (phonetic) is with us today.

We have membership that is coming in from accrediting bodies as well as folks that are in government. Basically we're all focused on the same problem. We know that we're on the cusp of a massive wave as organizations look to unharness the potential of digital. And there are significant impacts, not just from the way work is done, but the work itself. So what's going to happen with the worker?

If you think about the complexity of the problem that we're trying to tackle and the scope of opportunity, consider that in the study that DMDII did with McKinsey, 81 percent of organizations said they saw tremendous potential in their data, they saw tremendous potential in digital,

and only 14 percent felt that they were prepared for it.

They have significant risk around waste, around productivity silos that don't really foster the kind of innovation that we need and certainly don't foster speed. So there is tremendous opportunity. We're talking about infrastructure recently and that the last massive expenditures in infrastructure happened in the '60s and '70s.

Well, think about the manufacturing horizons. We went through automation. We now have digital in just about every part of our lives, and yet we haven't really cracked the code as it relates to digital and manufacturing, and there's just tremendous opportunity there. What it looks like when it's done is that you have a digitally-connected universe.

So instead of a supply chain you have a supply network. You have connected with consumers. You have connected the designer and the maker in an incredibly powerful way. You have the internet of things woven into the fabric of how you do business. So everything moves much, much faster. It's a terrific landscape.

The question that we've been wrestling with is, what

does that look like for the individual? What does the world of work start to evolve to at the individual level and first of all, do we have the folks with the skills that'll help take us through the revolution? Secondly, if we don't, what do we do about that from a supply perspective and readiness perspective?

What you see up here, and we'll make sure you get copies of these slides, is a representation of what has been the evolution in digital, and where are we headed to now with augmented reality and artificial intelligence and trying to unleash the power of analytics? The reality is the workforce that we have in place right now does some of this, but what this looks like in two years, three years, and four years, that's the peek around the corner that everybody wants to have because it takes time to develop the workforce to do that type of work.

That has been the focus of our work at the institute, which is developing a picture of what those roles will look like inside of organizations that will unharness the power of digital. So what are those future jobs? What are the types of workforce development interventions that will be required to take the workforce we have today and get them

prepared to do that work?

What's great about it is it's a very planful (sic) approach as opposed to saying we're just going to look at the technological revolutions. The institute absolutely does that. They have an entire part of their work, a technical advisory committee, that is devoted to looking at those kinds of brilliant innovations. But the piece that they had enough foresight to stake out was to say, "Well, there's got to be a workforce development component to that too because if you develop all this great technology, who's going to use it, and there's a risk of leaving people behind."

And there's no reason to do that. There's opportunity for every individual at the table, so a tremendous amount of work going into describing that workforce, describing the gap between what we have today and what we'll need in the next three, four, and five years, and recommendations on how to close that gap.

So that's the collaboration that I'm representing today.

MS. EDMUNDS: Thank you, Rebekah.

I'd like to introduce Cathy Crary from the Department

of Workforce Development for the State of Wisconsin. She is substituting today for Scott Jansen, who was unable to make our panel. Thank you for jumping in, Cathy.

CATHY CRARY: Thank you very much for having me. I appreciate it.

Of course if any of you know Scott, those are big shoes to fill. I'm going to be focusing on something in particular here today, and it works really well with what the rest of the panel members are talking about.

When we think about what are we doing as states, what type of collaboration, what types of best practices do we have to really address the lack of or the talent pipeline?

Wisconsin has been fortunate to have a long-standing registered apprenticeship program. That was initiated back in 1911. They've had well over 100 years under their belts, and it just is the time. The moon and the stars have come together, and now we have our national efforts also moving forward with that and recognizing the need.

We have in our state a 24-year-old program that is referred to as the Youth Apprenticeship Program. That's something that you're hearing a lot about now from a federal level as well, but in Wisconsin we did fund that

with state dollars, and that really came out of a 1991 initiative that was probably led by the Clinton Administration. It was when DOL and the Department of Education came together, very similar in my view to what's happening with the reissuance of the WIOA funding, where we're really trying to break down those silos and address the needs of the industry. I'm going to take a deep dive into one example of what one state is doing that is helping to address the pipeline.

We have the Registered Apprenticeship Program, which is of course adults. And just to give you kind of an idea, our big effort is doing a bridge program where we're taking the Youth Apprenticeship Program and trying to align it with the Registered Apprenticeship Program.

You might think, "Didn't you do that from the very beginning?" Twenty-four years ago it was kind of a radical idea. So, no. We really developed the youth program in areas that were not the traditional trades. We worked in things like biotechnology and finance and IT. We had drafting and design. Now we're having the opportunity to really make those connections in construction and working into some of the other trade areas that we haven't done.

So let me give you an idea. It's perfect timing as well because there's a tremendous amount of opportunity with grants that the states can go for to help expand registered apprenticeship. So that's helping us build that seamless transition, which is what you're talking about.

I just want to put this plug in. Why do apprenticeship? Because you're hearing employers say, "It's changing so fast, how do we keep up?" We know the schools can't keep up. We know that the technical colleges do the best they can, and a plug for Wisconsin's technical colleges: The reason we've been successful is because we have a statewide system and they've been dynamic and continue to be.

When you said Gateway was at a -- yeah, yay. Okay. That was my 10 cents on that. What I wanted to point out to you though is just on the statistics that we're currently working with -- with registered apprenticeships, some of the basic outcomes.

If we're looking at the sectors that we're currently in, we really only represent four sectors, but that really boils down to well over 256 different job occupations. We think about construction trades, that's quite broad.

Industrial and manufacturing services, and that can be multiple sectors, and the utilities as well.

We're doing a big focus in the waste management and water area, and it's very timely because youth apprenticeship was working on the same thing. So that is something that we feel very strongly about. In 2016, we had almost 2,600 employers involved in registered apprenticeship and over 9,000 active apprentices.

With some of the funding that they have received, the Registered Apprenticeship Program, they're moving forward into advanced manufacturing, information technology, health services, biotech, finance, and expanding the whole construction industry. There are some child labor issues that we have to keep an eye on, and we do that with all of our YA programs. They're vetted through our agency.

Anything that's developed, and they're developed by the employer. That is how we start. The employer comes to us and says, "We're facing a crisis. We've got an issue coming up. We want to work with you to develop a youth program."

So we modeled the youth program in Wisconsin after the Registered Apprenticeship Program. Of course, it ends upon

the student's graduation from high school, but what happens at that point is where the bridge comes in. What we tried to do for everyone who's starting out new, and we left you some of these copies as well, we put together a document that helps the local communities understand how to engage in those conversations, how might we bridge one existing program that is really youth.

It's 11th and 12th graders. They have their standard core academics, and then they go into a particular industry and related instruction, related to that industry. The fascinating thing is -- we did include these statistics for you also in the green folder -- is that the employers are paying the wages. The employers have really stepped up to the plate in Wisconsin and said, "We need it. We're willing to train them. We're going to provide mentors. We are going to pay them."

So just my stats from '15, '16, our employers have paid in estimated wages to our youth apprentices of over $13 million.

That is a lesson in itself: getting a paycheck on a regular basis, and this is for all youth. Talented and gifted kids get bored and check out of school sometimes as

well. This keeps things relevant, and they're right at the table. So those stats are available for you in that folder.

I want to also mention that as an agency, we're really working at enhancing in any way we can, maybe combining funding. Under something referred to as our Wisconsin Fast Forward program, we were able to do a block grant, which would be to say we've got these different funds sources, we'll put them all together, and then depending on where the most demand is, we have the opportunity to put more money into, for instance, for the '16, '17 school year, we had a higher demand for Youth Apprenticeship Program.

So we were able to pull some funding and put it into that area. That allows us the flexibility, and we didn't have that before. That was recently enacted by our legislation. So we get federal funding, we have a lot of state funding that's also helped promoting, and then we have local -- there's a match obligation and the employers -- it does not happen if employers are not at the table from the very beginning and constantly grooming and helping us keep up to date with the checklist and the skills they need to learn.

MS. EDMUNDS: Great. Thank you very much, Cathy.

I'd like to introduce Nick Wilson. Nick is the president of Morrison Container, an Indiana company, and he has collaborated with Dr. Niaz Latif who is Dean of Technology and Director of Commercialization and Manufacturing at Purdue University.

Nick and Dr. Latif, please talk about your collaboration.

NICK WILSON: My company is an Illinois company. We design and manufacture custom packaging machinery, and if you buy anything in a bottle or can, we've had something to do with it.

Over the last 20 years, the packaging industry has transitioned from building primarily mechanical equipment to equipment that's driven by servos and computer controls. My company has had trouble hiring technical people with these skills. Because I've had a lot of involvement with trade associations in our industry, I know that our need was not unique.

I approached Purdue Northwest about developing a program that would fulfill this need. My company had had a long-term consulting relationship with the one of the

professors, which helped with the initial content.

The outcome, in a little over a year, we started in 2007 and went live in 2008, we developed and started and accepted students in the first four-year mechatronics program in the nation. The key to our success was exposing the professors to the industry. I arranged for two of the professors to visit our trade show in Las Vegas, and it was fun to watch them walk around the floor at the trade show. They were like kids in a candy store. They wrote the initial curriculum on the plane trip back to Chicago.

The takeaway for me was -- and I hadn't really thought about it before -- what they saw when they walked around the trade show was jobs for their students. I sourced industry experts to meet with them and collaborate on the curriculum. We arranged for visits to industry plants where they could see how the industry was using the technology and what jobs the students would have.

We needed to have a champion in the university and support from the administration. You need ongoing industry cooperation and contribution. The results have been good, interesting jobs that stay in the U.S., and they have good starting salaries, in the 60- to $90,000-range.

My company is a relatively small manufacturing company, but if you're willing to be involved you can have a big impact on the workforce.

NIAZ LATIF: Good afternoon, everyone. I am Niaz Latif from Purdue University Northwest, a new university just formed July 1 by the unification of two campuses, Purdue University Calumet and Purdue University North Central.

The new university, Purdue University Northwest, has a strategic plan. One of the goals is to be engaged in the university with the regional business industry. So we're fully committed and such commitment is at the highest level of administration.

This partnership with the industry helped us to launch the baccalaureate degree program. Then we realized that the as we cater to the need of these small to medium size companies -- there are hundreds of those within the 15- to 20-mile radius -- we found that they do need workers at every level; technician level, technologies level, baccalaureate degree level as well.

Because of our partnership with industry, we wrote several grants, and we have been very successful in getting

National Science Foundation grant to develop the workforce development training modules and so on. We cooperated with the College of DuPage in Illinois, and we came up with a model of delivery of these kinds of training programs.

After the success of such programs, then we found that there's a lot more need than we can meet in just one program or two programs. So we wrote a grant and we got the United States Department of Labor grant, and with that grant we trained mechatronics technicians.

And where we designed that program is in partnership with the industry. Tell us what you need. We will package it so that we can give you the workforce that you need. I'm happy to say that we have trained so far, this last year, 315 people, free, went to the training. Almost more than 300 individual certifications got U.S. Department of Labor endorsed certification.

Seventy people got brand-new jobs that never had jobs. These are the individuals walking through the door. We give an assessment test, and if they have the right kind of skills, they go through the process. It's a module, so not everyone finishes the whole 21 weeks, but if they are competent in the mechanical part, they get it from the job.

So we are very happy with that.

Along this process, what we found was that we have certain commitments from the institution and there are needs around us, so we have established a Commercialization and Manufacturing Excellence Center. We found that through this unit we can deliver two things. We can foster the growth of innovative ideas from any citizen in that region: faculty, staff, and so on. That's the commercialization part of it.

Then we have developed a capacity through the U.S. DOL funding that can be used the rest of the time or from now on to provide training to individuals who want that kind of skill set. We have been very successful. This place which was not used -- we hadn't/ used that building for a long time -- the university got that building. We renovated it, and now it is now a center attraction office in Indiana. I would ask you to visit that facility.

After we are done with these Department of Labor things, we started giving the customized training to any industry who can walk in and say that these are our needs. We can put the package. We don't have to rely on our faculty only. We find the right kind of (inaudible

0:32:40.6) wherever we can get who would have the capability to provide the training and so on.

As we speak, there are two other trainings going on right now, state-funded and also funded by the industry. Our long-term partnership with the industry is helping us to seek these grants to help the workforce. Our industry partners tell us there are jobs, but those are at the enhanced levels, and we are trying to meet that. The Purdue University Northwest is very nimble. They can accommodate, they can deliver the things as long as we know that our students are gradually finding employment, and they are indeed finding employment, good employment.

So are the citizens and the people around there who are changing their trade, becoming skilled in the new advanced technology area. They are also finding jobs. I know that the small- to medium-size industry needs this kind of skill set. So we are trying to cater that need. Thank you.

MS. EDMUNDS: Thank you very much.

We have Greg Hummel who is partnered with Bryan Cave, and he's been a huge advocate of employment and employment solutions. Greg is going to sum up what the panel has said

today and where we are going to be headed in the future with the alliance.

Greg, did you have anything more to add right now?

GREG HUMMEL: We've heard a lot of things that have worked well. The key themes it seems to me is industry-driven collaborating very closely with curriculum development, and getting to the students early, getting to the parents early so that they can understand that there's great job opportunities that exist in this area.

So what we'll come back to after the questions, Anne, that you have for the panel, is a work plan for 2017 and beyond for the Alliance. What we want to do essentially is locate centers of excellence in places where the ingredients that we've heard from the panelists are there.

So we're going to be looking to do this in a way that's collaborative with business, universities, schools, and governmental units across our three states. One of the keys is going to be what Rebekah talked about coming out of UI LABS. We've got that wonderful asset in our midst, and so we'll be able to not only deal with the apprenticeships at the beginning levels but also follow the industry trends with the digital thread. More on that later.

MS. EDMUNDS: I'd like to ask a question of Dr. Hellmich and Dr. Latif. Why is it so important from an educator standpoint to address the skills gap and for it to be led by business?

DR. HELLMICH: I began my career in higher education as a professor of English and being on the liberal arts side, I and my colleague, frankly, were quite pompous because we knew what our students needed. We knew what the community needed, and we were not hesitant to tell them what they needed.

When I became a dean at a community technical college I remember the first time I went to a workforce curriculum meeting, and it was in machining, and my eyes were opened of how vehemently the manufacturers came to the table to articulate what they were not getting from the community and technical college.

It really needs to be -- John talked earlier about dating. I'll talk about marriage. It needs to be a marriage of academics and industry because a really good faculty member is going to really be on the cutting edge of his or her profession and can bring concepts to the table.

At the same time, if we are not meeting the

manufacturer's needs, they're not going to employ our students. Ultimately it's for the good of the economic development of the area, and they're not employing our students, their needs are not being met, and the economic development of the area suffers.

DR. LATIF: The way I approach this is at the college we decided it's a recruitment employment. If we have a student coming into the door, if we take care of that student and go through the proper education, find gainful employment, that's what we strive for. We don't have to put out an advertisement. They advertise to others.

So how do we find out where those niches are? It is our faculty members who are engaged with industry. I will tell you, this home mechatronics thing came from one faculty member who was engaged with Mr. Wilson's company and said they have been talking about it, they cannot go for one mechanical engineering or electrical engineering. They want someone who will understand mechanical, electrical, controls, and automation. Can you put together something? Without thinking second minute I said sure.

What happened is that industry, Mr. Wilson, levels of the resources, brought the industry folks on our campus to

spend one and a half days and gave us, "These are the topics we want." The challenge for the faculty member is to package it in such a way that it goes to the faculty and the curriculum, possibly within the institution. Within three months we've got the program.

That commitment by the industry is that we will provide the laboratory equipment, we will provide the internship. We will figure the job. Those are the firm commitments. I think it's a win-win. If there's a commitment from the institution, there's a commitment from industry, anything can happen.

As we developed this program, other things came up. "Okay, you are doing it. Why can't you do it for technicians?" We did it. Then the question is, those are smart people going through this technician program. What happens if they have the aspiration to get a college degree? So we build the career pathway.

Any training -- they went through this 21-week training program. We have our particular agreement with the Ivy Tech Community College where they'll accept those credits and then Ivy Tech Community College and Purdue University Northwest (inaudible 0:38:48.1) between

associate degree and the bachelorette degree.

So it's winning as we speak. Out of that training program, six people are already enrolled in the college program. So to answer the question, I think it is the willingness, passion, and the matching. Our job is to match the right person at the college and the right person in the industry who will make that kind of commitment.

MS. EDMUNDS: John, I have a question for you. How are you able to recruit and sustain the active involvement of individuals in the multi-craft internship program and keep that program going?

MR. GVOZKJAK: The program just officially started. We started with multi-craft in 2012, as Dr. Hellmich indicated, and in 2016, we have enhanced it with this internship program. Internship is requiring the active involvement of companies, of manufacturers, and of industry. How were we successful? It reminds me of a study that I read from *The Economist* that in one of their intelligence unit surveys that they did in 2014, and it asked that question of manufacturers.

This was a survey of large companies and small companies of executives who are decision-makers; how are

you going to help or what is your means of helping postsecondary educational institutions to achieve objectives that you have?

In other words, how are you going to help? What you going to do as industry, as manufacturers? How are you going to play in this? What's your skin in the game? By clear majority the answer was, "We are willing and interested in providing internships." That was the number one answer. "We're interested in providing internships."

That's pretty clear because companies -- colleges don't have all of the machinery and everything else. They can't provide the real world environment. Companies can. Companies might also get a little bit of benefit by employing interns also. So there's a little bit of a payback, and they're going to be spending the money, and they're going to be using their training dollars to send their students to schools.

In other words -- that was the number one answer. The number two answer is provide mentoring. The last answer was in effect paraphrasing, write the school a check for instruction or something like that. That was the last choice that they had. So I think that what we did, and the

reason why this is sustainable here, is we've hit on this, and remember in our area you saw the chart, we are small SMEs. Just like at Purdue.

We're SMEs. We made it through the Great Recession. We've been here since 1909, and we're still here, and we're working on a second hundred years, but it was hell. We are lean. We don't have a lot of resources. I think we have the innovation and the drive, but we don't have the funding resource internally that large companies might have and the other human resources that they have to contribute to the effort.

That's why it's so critical that we have such a tight marriage with our local community college and why it's important to have them listening to our needs and have a collaborative.

DR. HELLMICH: And if I may add, the manufacturer gets to see that intern and see if he or she has the skills including the relationship skills, communication skills, the soft skills, and then you get a chance to woo that person before the person goes elsewhere to be hired.

MR. GVOZDJAK: That's right. They can check us out. We can check them out. It's kind of a win-win, so that's

why I think so far we've been successful in recruiting. We have 12 manufacturers that are actively involved in the internship program with Sauk Valley Community College.

MS. EDMUNDS: That's commendable, because I think often times we see the three-legged stool where we can easily get academia to the table, we can easily get government to the table, but we really have trouble getting business to the table for these types of collaborations.

Nick and John, that's very commendable what you've done, and look at the groundswell.

Rebekah, I find your topic extremely interesting, and it's very clear that digital is going to change the landscape of the world of work. So what does the future hold?

MS. KOWALSKI: Wow. The crystal ball is actually over at that table in my purse. I think there's a mixture of things that are certain and things that are uncertain any time you're looking at the future.

What is certain is that we're going to need to be continuing down this theme of being very nimble, being very agile, and being willing to be a learning culture because digital has already changed so many things so quickly. We

felt that really first in consumer preferences. That was the most obvious manifestation, and that whole universe created jobs that no one could have ever foreseen. Some of them had these fantasy titles like, Artificial Intelligence Engineer. Who doesn't want that job? That sounds really cool.

There are things that are less certain. The work that we're doing right now is pretty clearly articulating, these are the skills and competencies that will be needed in the three-year, the four-year, the five-year period of time, but going out any further than that is not really practical because the way that technology is advancing, it keeps changing where the foundation is. So you have to keep pushing out.

There is quite a lot of chatter, if you will, around fear-based statements like, "Well, the robots are coming to take our jobs." Last year I think my husband, who's an engineer, got a book about the robot uprising from a prankster brother-in-law, that that's imminent, but it's a real fear, this job destruction when we talk about the future.

That's actually what most people are asking about.

How many jobs are going to go away? How many are going to stay? What are the ones that stay going to look like? There's a whole body of research with some very pretty charts and graphs around where digitalization actually makes certain jobs obsolete. What's less certain is what is created.

It's not a perfect answer, but I think there are a few things we all have to keep in mind. One is just recognizing that this is changing and also recognizing there are very few levers, as you gentlemen who run businesses know, very few levers indeed for productivity gates. And what's happened to productivity and manufacturing in the U.S.? It's pretty much plateaued.

So this is where we're going to pick up some productivity, some say quite significant gates, right? That's also going to produce the ability to create new and more innovative products much more quickly, and again, products that no one can foresee.

There is a limit to how far into the future we can look, but what we can say is education is going to matter like never before, and the way people consume education is going to have to change because it's going to have to keep

pace with that ever-evolving world, which is why it's so important that education is at the table with the employers and with government, and let's not forget that persnickety individual who also has to choose now the point of view on career that career is an ever-changing picture as opposed to, I am this, and this is what I'm going to be for the next 20, 25, 30 years.

Both Nick and John mentioned something that we're finding very true in our research, which is the omni-skilled person, I don't just need an M.E., I don't just need an E.E., I don't just need someone with a computer science background, and I don't just need someone who's on my shop floor. Consistently as we have made the rounds of tier 1 manufacturers and talked to SMEs, they have said, "I need someone who can do it all."

These people that are actually going to propel the revolution, we can tell you one very large organization that will go unnamed, "We have 10 of those people. We need 1,000 of those people in order to effect this change, but that's not how education works today." I'm either an electrical engineer, or I am a mechanical engineer, or I'm something else.

What if we need you to be five different things plus you've actually welded something, and you know the difference between tack welding and soldering, and you know how to program that CNC. It's just a very, very different world, and it's more than just academic and applied together. It's a whole new horizon.

So those are the kinds of things that we're certain of, but that's also mixed with that degree of wow, it's really going to change quickly, so we have to change our idea of what jobs and careers look really look like.

MS. EDMUNDS: Thank you.

MS. KOWALSKI: Sure.

MS. EDMUNDS: I think the whole panel could answer this or have input on it. We don't see a lot of collaboration. We see it in pockets across the U.S. How important is it to create a workforce development and innovation initiative from your perspective? How can we take that forward for the rest of the State of Indiana, Illinois, and Wisconsin?

MS. CRARY: Should I jump in?

MS. EDMUNDS: You can jump in.

MS. CRARY: Okay. I'll tell you one thing. One thing we're realizing, and I think you're hearing it, is that everyone's doing something, which is very exciting. And I think the challenge we have is, how are we going to coordinate all the efforts because we've looked at just the mass amount of funding that comes in just to our state alone, and how do we go about ensuring that everyone sees if we could coordinate our efforts and we need each other, then that will be -- it's almost like doubling the investments.

We have youth who need this type of assistance. Our schools are limited in what they can do; our public schools, technical colleges, four-year universities. We want to see that seamless opportunity, but we also need to recognize that there could even be some impediments that we didn't think of that we've put upon ourselves.

They could be laws that we have in place. They might be things that are either governing us from a federal or a state level. It could be insurance companies not choosing to cover certain age groups. These are the types of things that when you step back you go, if we had a collaborative effort we would be able to appease all of those players and

get so much more done so much quicker.

And I think it really speaks to efforts when you're not asking for the same funding source, one state asking the feds for money for the exact same effort. When you've been mindful to say we're taking a piece, but we're coordinating it in this way.

Everything we're talking about today I could say, "Oh, that sounds like our programs."

MS. KOWALSKI: I was going to say that is wonderfully said, and the picture that came to my mind is it's the difference between shooting toothpicks at a target and throwing an arrow. We've already talked about the power of what would happen collectively.

Think about that from a workforce perspective. It's a great place to make an investment and to take everything that is done well and really think about how we move together or just put more weight behind the punch.

Pick an analogy, but it feels like at this point in time, it's almost an IQ test. Do we work together to effect a significant change that benefits workforce and economic development, which always go hand in hand -- you can't have one without the other -- or do we continue to do

it individually and pick at the pieces?

If you want to push for innovation, let's go into that space where we're leveraging all we have to do something different that produces the different results that we want to have.

MR. WILSON: One of the interesting findings I had in working with the mechatronics program, there were a lot of companies that had the same need that I did, and they were all wanting the people, but they weren't doing anything, and the professors want to produce the students.

But when I got involved, it was easy to get cooperation from other people. We raised almost a million dollars in equipment for the labs. All I had to do was ask. I didn't have to twist arms. Everybody was waiting to be asked to participate. Maybe we don't ask enough.

DR. LATIF: The other thing, if you look at the recent request for proposal from the state agencies and federal agencies, one of the things that is already there must be a partnership between the economic development group and industry partners, so the package should go there. If we are asking for something for training, established commitment by the relevant industry as well as it will

generate the economic development in that region, so that has to be documented and submitted jointly. So that's a good trend in terms of federal- and state-level funding.

MR. GVOZDJAK: So from a manufacturing standpoint, companies are going to participate when they see benefit. That augers, and it bears out in these studies, that augers for a regional approach or a local approach. In other words, I've got these local problems so I'm going to help -- if I can see the results of the local effort that I'm making, I'm more willing to get involved than if it is an overall one-size-fits-all.

And I raise that because I looked at -- to Cathy's point -- I looked at this Youth Apprenticeship Program in Wisconsin, which is a model program for high school youth and they've divided up the whole state and each -- of course there are different companies in every single region, and they have an umbrella program. Here's how generally it's going to work, and now you make it work right in your area. Am I right that that's kind of how that works?

MS. CRARY: Yeah.

MR. GVOZDJAK: And I think that you get far more buy-

in from companies if you're asking them to take on youth apprentices or others if they can say, "Okay, yeah, our area of the state here is really more agricultural and dairy, and therefore that's the kind of programs we want here. We have no manufacturing so to speak." I think that that's part of it too. Get some structure, but then also let the region focus on what it needs. And I think you're going to get buy-in from manufacturers.

MS. EDMUNDS: We talked -- I believe, John, you mentioned it, or maybe it was Nick, that we find people with skills that don't have the soft skills to enter into my facility.

Cathy, you talked about your bridge strategy. A bridge strategy, a soft skill strategy. How have employers engaged with the bridge strategy, and how do they support that initiative?

MS. CRARY: Well, our very first program in YA happen to be in printing, and John Terenes (phonetic), most of you wouldn't know who he is, but he participated in a video and said, "I didn't know about having these 16-year-olds come into my place of business." He looked around and said, "I got some living in my house, and I'm not so sure that was a

good idea." It was just charming.

What we realized is that youth will step up to the plate, and the employers are willing to give the youth an opportunity. Yes, they want some prep work. The employers want to see prep work done ahead of time, and some of that can be done in the classroom. We understand that.

But soft skills have to be practiced, and so you need to be mentored, and in a classroom, lots of youth get to a point where they don't want to listen to their mom and dad, they don't want to listen to their educator anymore. So listening to a peer; they go to work, they see an employer as someone they want to aspire to. And the other part we found fascinating is the employers, the employees that were around there, took these youth under their wing.

They wanted to see them succeed. Or in banking, for instance, some of the other employees went, "Well that youth is on a rotation. I've only been a teller here. Could I go on this rotation? I would like to know a little bit more about the business." So the banks jumped at that. They said, "Yes, this is kind of like putting some emphasis and personal development into the employee."

So it ended up having some hip pocket extras and some

win-win. So I think employers are 100 percent behind the program. Once we get them involved, they stay.

It is not without work. Any time you're bringing in someone, and you know that, anybody you train, you bring them in, it takes a period of time to acclimate and get a routine down. Once you have that, the mentor or the local trainer if you're rotating them through other areas will ask, "When's my next one coming?" because they don't stay sucking knowledge forever. They get to a point where they're proficient, and now they're taking some work off you. That's the objective. They need to be able to be fulfilled on their own.

Now the other things that our bridge program is really helping to solidify would be ACP objectives that the Department of Public Instruction has, the career pathways and doing the -- not the bridge programs, but the abilities within the technical colleges to come in and out -- kind of that seamless entry, get in, get that embedded piece that you need, and be able to move out and continue to stay working in the workforce. So I think it's hitting a lot of different notes.

MS. EDMUNDS: Okay.

We've talked about the bridge program. We also talk about at times when a person gets on a job that there are certain interventions that need to take place from a business standpoint. What other workforce development interventions show the most promise as it relates to these new and evolving roles?

DR. LATIF: Having gone through these 315 individuals going through our training program, we found that in addition to training there are some issues we did not foresee. A few things happen; showing up on time. It's free, no cost to the participant, but they have to be motivated to some extent that they find a value and they show up.

To do that, we have a project manager, and we also have an internship coordinator and placement coordinator. They work with the career placement professionals, and they also provide them something over punctuality, career -- how you present yourself. When you go to your company for internship -- because we have internship also built into this -- so how do you behave.

And then it was very surprising that we felt so confident about these individuals and their professionalism

that we added them, when we at Purdue University Northwest had their own career fair, we added them and these individuals showed up with the right kind of resume and integrated with them, and many of them got either an internship or a job.

So it's all as you mentioned. There are places where they tend to fail for the things beyond their control. So having this one-on-one interaction with the project manager and the internship coordinator, they can identify, they feel that they can share this with them.

Once we know what the issues are we can tie them with the professionals. So now we did not have (inaudible 1:00:06.0) center but we partnered with Workforce One in northwest Indiana. They have the professionals. They were our partners. They would help these individuals go through this process when they had certain difficulty in their -- even personal life.

MR. GVOZDJAK: With the internship program that we've collaborated with, I think it's sort of unique in that the interns are hired as employees and can be fired as employees. There's an interview process. There's an application process. During that interview process you

make a determination, does this person have the soft skills to blend in just like we would hire any other person?

The intern becomes a part-time employee, and as a part-time employee, that has its benefits for manufacturers too because you don't have all of the other things that go along with having full-time employment. It's at-will, so if things don't work out, the interns learn pretty quickly. I think that helps the school to be able to counsel and prepare the interns.

At Sauk Valley College, there's resume preparation. They're doing an interview. Actually, there's some pre-interviewing that happens too because they kind of say, there's a little bit of a matching process. They'll say, "I think you ought to apply to this company here. They're looking for somebody who you might match well with."

But again, we're counting on the schools to develop those soft skills to teach them, and it's the real world, and there's real consequences if you don't show up on time.

MS. EDMUNDS: Thank you, panel, I appreciate your input.

We'd like to take questions from the audience.

Do you need a mic?

FEMALE SPEAKER: I have a mom voice.

MS. EDMUNDS: Okay.

FEMALE SPEAKER: I'll see your dating and your marriage and raise you the emotional affair. I think for most of us who came down from Racine, that emotional affair, the passion, is water.

I loved what I'm hearing about Purdue Northwest and pairing and creating something that really prepares people. For anybody who was at the 2015 Alliance it was clear that we're not entering a crisis in our region for water. We have 20 years when basically the crisis is -- it's too late to do anything -- we're in it right now. We're in a house of cards, we're standing on top of it, and we need to be right now training basically a generation of water warriors.

So what is the action plan so that at the 2017 Alliance we're not sitting here -- again, walking out of here, what can those of us who want to be sure much like was mentioned earlier -- if only I hadn't known about study and supply chain -- right now we need these kids to be studying how to fix this.

We need to have trained educated kids graduating that are going to be able to deal with this and be water warriors on the ground. What do we do? Where do we start walking out of here if that is our interest? And also, who's responsible for the messaging because we now have social media, which is exactly -- it's free -- we don't need a budget for that. We simply need continuity of message.

So who do we start looking towards between now and the 2017 Alliance to start getting out a continuity of message when it comes to things we leave these kind of wonderful summits in agreement upon? What we do next so we're not having these questions next year?

MS. EDMUNDS: Greg and I have been working toward developing these centers of excellence. So your input is very valuable that you see jobs that need to be created for that particular realm. It will be our responsibility to follow up with you to find out what jobs need to be created and how government and academia and business can work together to create those jobs and to show you metrics and outcomes.

DR. HELLMICH: If I may add from the local level, my

hope is that every one of you has a good relationship with your local community technical college. If you don't, you should have. You should hold the college responsible to be meeting your needs now.

MR. GVOZDJAK: Anne, if I could add to this.

We really want to be specific at the Alliance platform level in terms of trying to have a coordinated effort in identifying the places where we can bring together industry, business, academia, and government. That's why I wanted to focus a moment on place.

I think one of the ways we can be successful across the three-state region is identifying some places like they've done in Hammond, like we're thinking about doing in Sterling, Illinois, and other places, there's a lot of obsolete buildings that can be repurposed. But apart from what I think's on display here, in a rich way, in terms of existing collaboration, what they've done in Hammond I think really points the arrow in the right direction, and that is a manufacturing commons.

We heard earlier from Jim Schultz that at least in the Illinois, 90 percent of the businesses have 20 or less employees. The challenge that I would put forward for UI

LABS is how can we marry the SME opportunity in workforce development in satellites for UI LABS in various places within the 21 counties because I think that's a rich opportunity.

The thing that's striking is that that we have really deep knowledge in lots of different places. Everybody does something, but if we could have self-identified centers of excellence rooted in place where we have all of the stakeholders involved, and then we monitor that at the Alliance level more broadly, but we go deep in places, it's likely to be towns that have community colleges already there.

I don't know that it needs to be sector-specific, but what it absolutely has to have is a business cohort that leads with the curriculum development in tight partnership with the university institutions, community colleges, and it needs also to get into the secondary school systems and to the parents of those kids.

So that’s, Kelly and others, those of us who have a passion about this, are going to try to, with Anne's leadership, be formulaic about it, get reports out to everybody who comes to this in our wider mailing so that we

can actually pick some places and then create collaboration across the states.

Because what happened at 1 o'clock, some of us were missing because we were down in a room where the secretaries were being interviewed by a leading reporter in the Chicago area. Look for something on that later. The idea was we'll have real collaboration in workforce across the state lines, we hope.

MS. EDMUNDS: One more question.

MALE SPEAKER: I just want to say that I think these collaborations between local industry and educational institutions are fantastic, and clearly there are plenty of jobs out there. We continuously hear about the skills gap. I feel like in the past, "If you build it, they will come." If there are jobs, that you will have a continuous stream of students to come and go through those programs and fill those jobs.

But full disclosure, I work with students on a daily basis and I feel like that isn't necessarily enough anymore. I feel like you have to sell the 18-year-old, the 19-year-old, even the 24-year-old or on up that manufacturing is a solid and good career. And it's not

even just necessarily about the money, although that's part of it.

It's also about in this 21st century age of self-branding and identity and whatnot, these kids have been told that manufacturing is falling, it's not like it used to be. I just feel like there's all these great things happening, but there's this final piece of the puzzle of selling that to our younger generation to fill this pipeline. I'm just wondering if anybody has any comments on strategies on how to do that or if you have accomplished that in the past.

MS. KOWALSKI: I have a comment. As far as the strategy goes, we've found that one of the things that has been most successful is to have the youth who are completing programs speak to other youth. They blow adults away. We do this annual thing at the capital where it's legislative day for the kids to come in. We don't, the state of course has nothing to do with it, it's the local entities.

I was surprised by that same fact. I thought there would be a ton of kids interviewing for jobs, and we tried to bring IT students into the Department of Workforce

Development, and we ended up with two kids interviewing and one decided he didn't want the job, so it wasn't hard to decide who was getting it. That was in IT. So I know manufacturing struggles as well. I think sometimes the kids that are doing it, they're the ones.

MS. EDMUNDS: We will take one more question. I believe the gentleman in the back.

MALE SPEAKER: Thank you for this panel, Anne.

This question is directed toward Niaz and Rebekah. Some of the things that I'm hearing have really still very formalized in terms of the way that people access training and education even if it's a JuCo or traditional brick-and-mortar, four-year institution, but then there's still a cadre of young people especially that really are subalterns when it comes to education and those kinds of opportunities for training to get them into the workforce.

How are you addressing those that still remain very disconnected from even secondary and postsecondary education, as well as when they are presented with opportunities being able to recognize them fully so that it's one thing to understand what work is and have a desire to work but not necessarily understanding what employment

really entails, like showing up on time and structure and deliverables and the like.

How are you approaching this? Is it something that's being thought about right now with regards to that community that doesn't necessarily understand the pathway to employment?

MS. KOWALSKI: I'll take one angle on it, and then hand it over. There are several questions inside of your question, so I'm just going to pick a couple of threads. From the UI LABS and DMDII angle there has been a significant focus on getting individuals in the door at younger and younger ages.

So not just high school, but 10, 11, 12, 13, 14 years old, because we really believe fundamentally -- and I would say this not just from the perspective of the UI LABS but also from Manpower Group, that if you don't capture kids when they're young and you capture their imagination, you force the importance of education, and how education is the pathway to employment and to full participation as a citizen in the United States, you've missed them.

That would be particularly true for at-risk youth. It's particularly true for girls who we want to see

pathways into STEM and yet we're finding out that they're tuning out at younger and younger ages because they don't understand that -- for instance, that STEM pathway is a linkage to what they want to do, they're told in many ways that it's hard, and that they should just peel away from that due to social pressures and expectations, et cetera.

The focus is in one intervention because there are many, many -- like I said, you've got a lot of questions inside of one question, and it's a good question. But a clear thing that we know from research that works is get them when they are young and help them understand how education is the linkage to everything.

As far as linking them into specific sectors and pathways, it's a little bit harder. I think we really do need to reimage what manufacturing is. When we talk about digital, that's also an opportunity to convey to our youth that this really -- it's beyond just -- automated manufacturing is no longer dark and dirty and dangerous. It's a clean room environment.

Digital manufacturing takes that completely in a whole new exciting direction. Think Ironman. Capturing people's imagination that way is what we need to do to get those

people brought in younger.

MS. EDMUNDS: We are running low on time.

DR. LATIF: I was just going to respond to one thing: the outreach activities. To make it -- when they visit, 219 students visit our campus, those are activity-based outreach activities. And what we emphasis is that the (inaudible 0:14:43.2) not just Indiana. We want to overcome that. It should be cool. It should have an awe factor. They have to be in an environment where they feel like this is where I want to work. That's what we are trying to create through our industry partners coming up with state-of-the-art laboratories where they go and see that these are not the kinds of manufacturing perception they have. That's something we have to try to overcome.

MR. WILSON: We regularly host junior high and high school students for visits, and they go away excited about the things that we do. I think you just have to show them what's happening.

MS. EDMUNDS: Greg, do you want to wrap up the conversation?

MR. HUMMEL: I think the panelists, I think what's on offer here is an integrative model that talks about

business working with local academic institutions to formulate the right curriculum.

There is a sort of a world-class example out there. It's a Germany: 300 different credentialed programs. At seventh grade you take a test; one points you one way, one point you to the other. I don't know that we want to be that structured. When we looked hard at the German-American Chamber model and wondered whether it would work in Sauk Valley, the indigenous effort that was led up by Dr. Hellmich has national credentials and he said, "We can invent it here."

There's powerful learning in all of that, and then there's powerful learning from Hammond in terms of what Purdue and this packaging company and industry leadership. So I think the ingredients are there. The key here is to scale it. That's where I think UI LABS becomes terribly important because we have that asset in our region.

This is the fourth summit, and we're at a point where trust is really building across state lines, across industry segments, and within the academic environment, and political leadership whether it's our mayor from Racine or other places.

So look for -- the lady's gone -- but the question that she posed toward the end of our session is what are we going -- we're not going to be, I think, asking questions as much for the fifth Summit but rather talking about things that have been implemented. Thank you.

MALE SPEAKER: And we want to thank you, the panel, for everything.

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