## Federal Reserve Bank of Chicago Fifth Annual Summit on Regional Competitiveness October 16, 2017

## The Skills Revolution & The Future of Work

BECKY FRANKIEWICZ: I think I'm a little recovered from the marathon. I did go on my first run yesterday, but it was really slow. And so, for those of you who have run the marathon, it's a great experience and I would say the best of our entire region, because people from all over the world were running.

I'm a native Texan transplanted to the Midwest, and I'm proud to say I've lived in two of the three states that we're talking about here today, and so I'm passionate about our capabilities here in the Midwest. It's a great time to be in business in this area. Whether you're in academia, whether you're in business, whether you're in public policy, it's a great time to be in this region, as we stand on the brink of the fourth Industrial Revolution, which will change the way we live, the way we work, the way we relate to one another. It's different from its predecessors. It's different in that it's the fusion of technologies that will impact and cause the convergence of physical, digital, and biological spheres. So, think about

that: physical, digital, and biological spheres. I wear a Fitbit on my wrist. There will be a time when Fitbit can tell me what I should eat for the day that I have ahead of me. That time is coming. That technology exists. I can wake up in the morning and say, I'm ready for coffee to my Google Home, and it will turn the coffee maker on. That is the world that we're walking into, and it's a very exciting world.

The challenge it's creating is a skills revolution. This bifurcation of the haves and have-nots; and I'm not talking about the one percent from a few years ago, a financial lens. I'm talking about skills and capabilities, where employers can no longer be consumers of work. We all have to be developers of talent, not only consumers of work, developers of talent. And employees have a responsibility; we have to be continual learners, constantly adapting to a new environment.

I was in Washington, D.C. last week meeting with a company in the Federal business, and they said, we want to create a liquid workforce, a liquid workforce. What does that mean? Where people can adjust and get new experiences and skills, and where companies can shift resources to where they're needed. Think about a liquid workforce, and this is a leading company in the D.C. area. The skills

revolution is upon us, and at ManpowerGroup we believe that we have to double down on workforce development and training, and that's what I'm going to talk about today.

So, the question is, at the end of the day, are we all ready for this skills revolution? So, why ManpowerGroup has the right to talk about this, we've been in this business for 70 years. We are a founder's company. Those of you in the house from the Milwaukee area, you'll know the name Elmer Winter. He is one of our co-founders. And he actually started with this idea of, we have excess capability; how do I apply that?

So we have 70 years of experience in 80 countries. The overwhelming majority of our revenue is done outside of the U.S. Clearly, I run North America, so I'm working really hard to make that a different number. I love the rest of the world, but I love this part of the world a little bit more right now. We operate across multiple brands in the employee life-cycle. So, anything from, you know, you need light duty industrial engineering, we can do that. You need a high-tech programmer, we can do that. You need temporary labor, permanent labor, we do that. You need to outsource employees; we can help them land on their feet.

And so, we really are a workforce solutions partner in

today's economy, and right in the middle of the conversations that are going on. So, you said Foxconn and Amazon will be coming up? How about slide three, for me. So, if you're these two companies -- so we all, I think we all know Foxconn is looking to set up a new manufacturing footprint in a different country. You look at Amazon, looking to create a second home. What are the conversations? What are these companies looking for as they look to expand? They're looking for skills. They're looking to understand, what is the skill capability in this region?

And I love the opening because candidly, they're looking in this region. They're not looking at a city or a location. They're looking for the capabilities in the region, and the more that we can do and present that together, the better off I believe we will be in attracting talent. Someone is going to build the skill for the future. Someone is going to do that. And I would propose it should be us sitting in the center of our country.

So, a couple of examples of just conversations that are happening. This is a recruitment difficulty index, so it's a little hard to see, but honestly, all you need to see is the color. So, recruitment difficulty; blue means it's easy to find the jobs, no worries. The closer you get

to dark maroon, the harder it is to find the jobs. So, over a four-year span, we have been tracking the difficulty of finding labor and fits for companies. You notice in 2012, lots of blue, lots of blue and light blue. As we've gotten into 2016, 2017, increasingly difficult to find skills.

So, we do have increasing demand at a reduction in supply. The workforce has changed. We have an aging workforce, but more importantly, the pace of change. This fusion of technology is moving so quickly that jobs are becoming extinct, capabilities are becoming extinct.

I have three daughters; they're all still in school. Sixty-five percent of the jobs they will have available, sixty-five percent don't exist today. They don't exist. So, if you're an educator, what in the world are you teaching? You can't teach. It will no longer be about what you know. It will be about what you can learn. And we call that learnability. Employability will be dependent on learnability.

So, how do you teach someone how to learn? If you believe even half of that, it means our entire education system has to change. The way we incent and reward our workers has to change. It's no longer about what you know, it's what you have the capability to learn, and apply. And

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by the way, we talk about millennials changing, you know, companies several times in their life; how about every day? A liquid workforce. Every day I need to change and adjust my skill. So, these are the things that these companies are looking for. What are the skills that are available? How difficult is it to map the skills I need for the future?

But we've been through this before. So you can imagine, probably one of the questions someone here was planning to ask about is artificial intelligence. What do you think the impact of artificial intelligence is going to be? Well, it's going to have an impact. It's going to eliminate jobs, and it's going to create new jobs. How do I know?

You know, my kids never watched the Jetsons. I grew up watching the Jetsons. So, I was showing it to them, and what used to blow my mind, they can see. They can see, you know, a world where there's a robot that creates meals, which by the way, I'm kind of intrigued by that idea. So, you know, that's a job I'd kind of be interested in. You know, a refrigerator, they exist today, right; a refrigerator that can tell you, you're low on milk, Amazon, send more milk. That exists today. So, we're not so far from the Jetsons' world. So, you know, the cartoons of

today, what is the future outside of a Jetsons' world? It's fascinating, but we've been here before.

So, go back to the early 1900s. You heard me say I was born a Texan, raised on a farm. In the early 1900s, almost 40 percent of the population was in agriculture, 40 percent; almost one in every two households. Today, anybody know today it is? Two percent. Thank you to the gentleman in the front, 2 percent. Okay, but we have a surplus, we feed our nation and we have a surplus. So, output has improved; two percent of the population.

Factories; back in the early 1900s, a quarter of the population in America was in factories. Today, it's 9 percent. So, we have faced this before. New jobs are created when other jobs go away. Our job is to figure out what in the world those new jobs are. And this is manufacturing, a chart on manufacturing. And again, all you need to know are the lines. So, the blue line is employment. The red line is output per job. As employment in the manufacturing sector has gone down, output has improved, and new jobs are created because all of you know we're at full employment, and our workforce is the highest it's been. And unemployment is low.

And so, new jobs have been created as this disruption has happened. We believe the same thing will happen with

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artificial intelligence. The challenge is it's always been easier to map the roles. You know, factories change. I don't need somebody to stamp anymore. I need somebody to run the machine that stamps. That one is easy to map out. It's not so easy today.

At the same time because of technology -- so remember, the difference in the fourth Industrial Revolution is it's not about automating manufacturing only. It literally will change the way it works. And so, consumers, employees, consumers are figuring that out. And they're starting to work differently. So, these are bar charts that show this rise of alternative work models, and how much it's growing.

Ten years ago, 10 percent of the workforce, 10 percent worked in an alternative model; meaning part-time, remotely, a host of different ways, independent contractor; the gig economy which you probably all heard of. It was 10 percent. Today it's 16 percent, and your reaction may be, uh, that's still low. No, it's growing. It's the fastest growing piece of the workforce, people who are choosing to work differently than they ever have before.

So, we did a survey to actually ask people around the world, how do you work? What is your preferred work method? Eighty-seven percent of people are open -- this is a global number, are open to alternative working, which

we call next gen, next generation employment. That number in the U.S. is 94 percent. Ninety-four percent of people surveyed said, yeah, I'd be open to working that way. When you say why to people who are doing it, why are you doing it, 80 percent say, you know, it's giving me employability.

So, go back to the beginning, it's teaching me new skills. We lead quite a large IT consulting group, and I was sitting with these contractors, freelancers; they prefer freelancers by the way, freelancers; and I'm like, why are you working this way? Like, you're making, you know, quite a bit of money, but why this way? The answer was fascinating. They said, because I'm building my skills. I can do this for a couple of months. I can do something else for a couple of months. When the economy gets bad, I tuck myself into a company, and I'm the one they want to hire, because of my skill assortment. Skill is the new currency. That number I think I mentioned is 85 percent of people in the U.S. It's 80 percent global, it's 85 percent in the U.S.

Then you see the rest of the data which have 90 percent of people saying that they enjoy it; 97 percent of Americans, almost 100 percent of Americans that are working this way enjoy it. So, we're seeing the skills revolution at a time when there's consumerism going on in talent. So,

you say, hey, what's somebody from a consumer goods company doing speaking to me about workforce development? Because we'll be the guide for employability. Just like I was working for Quaker Foods and saying, "Hey, oatmeal is great for you." The new game is, how do we attract talent? And, that's why I made the switch from a consumer goods environment to a workforce management environment, for solutions around consumers.

So, for ManpowerGroup, so we have the burning platform. So, what are we doing about it? As I mentioned, we're a founder's company. This is Elmer Winter, and again, if you're from this area, hopefully, you've heard of him. We're a \$20 billion company that he created first, with his legal secretary, whom he thought was very talented, and there was a demand for that skill in the market. That's how this business started. He was a lawyer by trade. This is a excerpt from a letter that he wrote very early on, for the company, about his vision. And it was true 70 years ago. And, it is even more true today. "We will do good, if in some way we can help people become employable."

And I would say that's no longer just ManpowerGroup's mission and vision; it should be all of ours. Because again, companies and employers cannot just be consumers of

work; we have to be developers of talent. And, if you think about your company, or the companies you've worked with, we've gotten away from that. We're consumers of work. We have to step back now and develop our workforce.

So, I'm going to share two examples of why ManpowerGroup is big in this state. The first is partnering with DFDII here in Chicago. Hopefully, most of you have heard about that. Because part of the challenge is you heard me talk about defining the roles. So how do we actually know to create the workforce? What are the skills the workforce needs? To do that, we've created this partnership, and went in and identified for digital manufacturing, what are the skills that are required? Working with companies like Boeing, GM, P&G, DMDII; we actually mapped out 165 new roles, a skill taxonomy for 165 new roles. We did deep mapping on 20 of those roles, actually identifying what are these things in the future that people need? There's one that's fascinating, it's like a -- I have to read it so I don't -- I'm not as familiar with it. It's a twin architect, a life-cycle digital twin architect. What in the world is a twin architect? That's going to be somebody's title. They actually capture the residual data that goes to an automated process, and then determine how do we optimize

the process based on what wasn't used. What wasn't used, not what was used.

So, we've mapped 20 of these to again identify what are the skills for digital manufacturing. So first step is, how do we create a workforce? We map the skill. The second step is, okay, how do we find a workforce? Because you've got to find the supply and then retrain them. And so an amazing partnership that we have done with Rockwell Automation out of Milwaukee, we created this academy that actually is focused on next-generation digital manufacturing. So, you may say, why do I care about this? Okay, go back to Foxconn and Amazon; what are they looking for? They're looking for skills. The skills don't exist anywhere today. So, it's a race of who can develop the skills.

So, I want to show you a video that brings to life this partnership we did with Rockwell where we didn't just retrain a general workforce, we took 1,000 veterans and reskilled them to compete in this next generation economy. So, we can play the video.

So a little view into how we defined the roles, then we went and found the workforce. And now, we are in the process of re-skilling and re-training them, because we believe that having people up-skill for the future is the

defining challenge of our time; the defining challenge of our time.

A funny story about the veterans: It's a 12-week program that we pay for in partnership with Rockwell. We bring them in and train them in two different facilities, all in this region, of course. And one of the wives called, of one of the veterans, behind the scenes. He didn't know she was calling. And he said, because they're going to end up making about \$20,000 more than they probably would have if they found a different role. So, it's a high-value job, because again, it's in demand. But, this wife called and she said, "I just want to make sure this isn't a prank. It feels too good to be true;" too good to be true. And isn't that the reaction we all want from our future talent is, this is too good to be true.

And so, if any of you in your regions need this kind of skill, we are training and developing these people. And by the way, I would encourage you to do, too. This isn't a competition on who can get the corner on the talent. This is about creating our region as the leader in this talent. We know where the jobs are going to be. We know where the demand is going to be. Now, we do not have people who can do it, and I think it's on all of us to create that demand. And so, I'd love to open it up for some questions, you

know, and your reactions to this idea of the skills revolution is upon us, and really the power is in our hands to create a new future for our country, and particularly, for our region.

MS. FRANKIEWICZ: Yes, sir?

MALE SPEAKER: What is the role of primary and secondary and tertiary education with this employer-led effort?

MS. FRANKIEWICZ: Yes, so great question. The question was, what is the role of education, primary, secondary, and tertiary education with this employer-led effort? We believe it's central. And so, candidly, I believe we have to totally go back into our primary and elementary school to make a difference. We cannot -- that is going to take time.

So, the second part of the question is, what can we do today? So, we are partnering at ManpowerGroup with University of Phoenix, offering free education, free for people who want to go through this process. We're also employing something called *My Path*, so, if you say, I want to be a medical technician, and you're a high school graduate today, we are partnering with Herzing University to actually create a path to say, how can you work and get paid? It's a lot to say to people, you can't get paid for,

you know, twelve months that you're training.

But, you can work and get paid, get the education and the skill at the same time to actually advance through the system. And so, we believe it's a very close partnership, honestly, between public policy, education, and from the employers to make a difference. We have to do it today. And these are things, you know, if you would have asked me three years ago, we didn't know how to do this. We don't know how to do this.

And so, I would say, none of us know how to do this. Someone asked me this morning, who's doing it right? No one is doing it right. No one is doing it right yet. There are people on the cusp of right. We just had never faced this before, and so, you know, any pilots -- now is the time in business for pilots, for trying things, for failing fast, and adjusting, and trying something new. So, I would say today, immediately, it's more around post-high school, because it will have the fastest impact, certifications.

You know, we have -- the other thing people ask is, you know, what's the role of a four-year degree now? I would say it's still crucial, however, we all -- we all as employers have to become much more open to certifications; people who have a specific skill, and want to go get other

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certifications. So, I'm not in academia, but I think it would be fascinating in that space to say, what is a fouryear degree that is compiled of certifications? So, you build your skills as you go.

MS. FRANKIEWICZ: Other questions? Yes, ma'am.

FEMALE SPEAKER: Could you comment on kind of the European process for beginning to train young people while they're still in school, or even as part of the gap here, or whatever?

MS. FRANKIEWICZ: Yeah, yes, the question is, what is the European process for training? Whether it's a gap here, or many governments, as you know, have dollars, training dollars. So, I had the chance to introduce myself to Ivanka Trump last week at an event. And, we're talking about apprenticeships here in America, which is fantastic.

That's the model, that's the European model. The difference in the model, is there are quite a few dollars available, whether you're talking France, or Germany, or Italy; quite a few dollars available for workforce reskilling. We're not quite at that point yet. I was encouraged to hear that our administration had met with the German administration to talk about what they're doing. And so, I believe that model is one that would benefit us, primarily for the workforce development dollars that could

come for companies, as well as for universities.

MS. FRANKIEWICZ: Yes, sir?

MALE SPEAKER: In Europe, they have a Euros path, not dollars.

MS. FRANKIEWICZ: Thank you for that clarification.

MALE SPEAKER: But my --

MS. FRANKIEWICZ: I was corrected on Euros to dollars. Thank you.

MALE SPEAKER: My question is about, you commented on 85 percent of the world. Do you include -- did you include Europe? Did you include China? Did you include the former Soviet Union? And, did you include Scandinavia, and do you have breakdown figures on those?

MS. FRANKIEWICZ: Yes, to breakdown figures. I don't believe, out of everything you listed, Russia was the one I don't believe was included. But, I'd be happy -- we have a whole study that I'd be happy to make available to this group.

MALE SPEAKER: Thank you.

MS. FRANKIEWICZ: It was 12 countries. And, what we tried to do was 12 countries --

MALE SPEAKER: 12 countries?

MS. FRANKIEWICZ: 12 countries in various regions, so we tried to get regional representation. But, happy to

share that stuff in more detail. Yes, sir?

MALE SPEAKER: Thank you. I'm from Purdue Northwest, down the road. And tomorrow morning, I'll be talking with my freshman class about today, and talking about skill sets. And, I can handle the communication, the written, the verbal; it's the critical thinking. But, they're going to be excited about all these jobs, and careers. What skill sets should these freshmen specifically be building in the next four years while they're there?

MS. FRANKIEWICZ: Yes, I love that. Thank you for introducing yourself, and I love that you're doing that. I think you all heard he's meeting with his freshmen class to talk about skill sets. First, I would say, you might not like this, but I'm glad that you're here; I would say, it's about learnability. So, it is really about, yes, gather skills, but it won't be about what you know in the future. It will be about what you have the capability to learn and apply.

And so, in general, I would say learnability is most important. And that's -- I mean, think about how scary that is. People go to college today, I'm going to be an accountant, like that's a skill set. No, in the future, it's I know how to analyze numbers. I know how to synthesize data. That's the skill set versus the job.

Historically, we've trained people for jobs. And, now we're training them for skill sets.

But, specifically, to answer your question, it is all about STEM. We have to bring science, technology, engineering, and mathematics into our curriculum. And again, not in a way that says you're going to be accountant. But, in a way that says, I know how to analyze and synthesize numbers. The world where I'm sure all of you have data analytics. The world where a data analytics, you know, advisor gives you a report is gone. Nobody cares about the report. What you care about is what are things? What do I need to do as a result of this? Data output is not interesting. Data synthesis is interesting.

So, STEM is the name of the game. One of the concerns, if you said, what are you concerned about when companies like Foxconn and Amazon come to call? I'm very concerned about the lack of interest in STEM in our country, very concerned; because that is the basis of digital manufacturing. It's the basis of the future.

And if you say, okay, I don't want to do digital manufacturing. Who cares about that? Okay, so, who cares about that? What are the skills that come with STEM? So, forget about the disciplines with STEM. What are the skills? It's going to be all about data synthesis and

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analysis. I believe in a world where we can predict human capability to contribute.

So, think about what I just said. I believe we will be able to predict the value that Becky Frankiewicz has to an organization. What is she great at, and therefore, what skills can she map to, and therefore, what is her value? Like, I know that's crazy talk. I think I heard the word "wonky" this morning. I'm going to get wonky. I know you're all like, she's lost her mind. I'm telling you it is coming.

The value of an individual to contribute is coming. The ability of companies like mine to say, I can predict this person's match to your future; its coming. So, I would say, gather a cadre of skills, but gather them around STEM would be my honest answer. And not think of STEM as, I don't want to be in science. That's not the point. What are the skills that scientists bring to the table? And, that's what you should focus on. Tell them I'm excited about their future and I can't wait for them to start working. We have 6 million open jobs in our country today, 6 million. So, if you ever hear of somebody saying they can't get a job, really frustrates me.

MS. FRANKIEWICZ: Yes, sir?

MALE SPEAKER: In addition to STEM and the

learnability factor, you alluded to, to try and acquire new skills that will be needed for jobs that may not yet exist, one of the skills that has been traditionally emphasized in our educational system is acquisition of foreign language. And I'm wondering whether you believe that foreign language acquisition still has merit in today's and the future's work environment?

MS. FRANKIEWICZ: Yes, I do. So, I'm going to give you two perspectives on that; absolutely, because I think business will still be conducted across borders. I also love the reference this morning, borders are lines. I absolutely think it's important, and now I'm going to give you another perspective. And, I have two daughters that are fluent in Spanish, which is the language I would say is very important in our country today.

The other perspective, we know that there is AI (artificial intelligence) today that can not only change languages, it can change accents. So, if you're in Spain, if you're in Barcelona, the accent is different than Madrid. There's AI, no, you said it's not? Someone spoke up. No, it actually is. So, we believe there's technology that can read your voice, you can say hello. They would know the Texas accent, and instead of you all, they would say "ya'll" to me. So, think about that.

And so, I say it's two parts; business will be conducted across borders, and so it's important, but there will be technology that when people call on the call centers, it will adjust and sound like a real person from your area, which is crazy almost, terrifying. I think we have time for one more. I'm getting the time. Yes, sir.

MALE SPEAKER: I'm picking up on that a little bit and I agree it's central in this area. But, I guess I would also suggest that maybe it ought to be STEAM rather than STEM, with the A standing for Arts. I mean, I think that --

MS. FRANKIEWICZ: Yeah, I love that.

MALE SPEAKER: -- we're all for creativity in this whole (inaudible 0:06:41) too, and I'm not sure how that would be.

MS. FRANKIEWICZ: So, I would so totally agree with you and may adopt this theme going forward. Because what are the Arts; so think about it again, back to skills; what do the Arts teach us? What do they teach us? They teach us the ability to connect different ideas. They teach us the ability to see something different than it is. That is a skill in the future economy that's really important. So, I love that add, and I'm going to take it as my own. Thanks. With that, thank you all for your time, it's been

a pleasure to be here. Thank you.

(END)