

Jason Altmire ([00:04](#)):

Welcome to another edition of Career Education Report. I am Jason Altmire and we talk on this podcast and in other forms a lot about the skills gap. And the paradox that exists in the skills gap is that there are many employers that have chronic difficulties in filling jobs, but there's millions of Americans that are unemployed and nobody knows more about that subject than Professor Joseph Fuller. And he is currently the professor of management practice in general management at the Harvard Business School, and he teaches the Becoming a General Manager course in the MBA program, and he's been a long time, decades long, very prominent management consultant. For our purposes here today, what I think is most relevant is he is the co-director of the project on managing the Future of work at the Harvard Business School. And we're going to talk about that in a study that he did on that skills gap issue. But first of all, professor Fuller, welcome to the show.

Professor Fuller ([01:11](#)):

Jason, my pleasure to be with you and your audience.

Jason Altmire ([01:14](#)):

You know more about this issue than probably anybody in the country. You've written multiple books on the subject of the skills gap. You've been a management consultant, obviously you have your role now at the Harvard Business School and the project on managing the future of work. I was wondering if you could talk about, when you think about where we're going as a workforce, what are some of the challenges that are most apparent to businesses and to educators when they think about educating the future of the workforce moving into the years to come?

Professor Fuller ([01:49](#)):

Well, Jason, that's a very flattering description. I'm not sure that I deserve that title, but I'll take it in case my mother is listening from the great beyond. I think there are two or three things that are apparent about the workforce in the United States today, and we have to start with a little context, which is workforce participation in the United States is at an all time low. Basically we have a very large number of underemployed people in the United States, and I think that's indicative of what's happening in education to employment transitions. That we really have a big disconnect where employers have become rather lazy and believe that they're supposed to be able to dive into the labor market and the right outcome, the deserved outcome is that someone's going to show up, gratefully accept their job on the terms offered, and is the education system is proposed to provide that flow of workers.

Professor Fuller ([02:53](#)):

Educators, I think are caught in a 20th century paradigm relative to 21st century economy. What's happened in jobs is twofold. The first, technology has become a big part of even the most routine jobs. If you go into a chain quick service restaurant, the person taking your order is dealing with a pretty smart terminal, the shift manager is dealing with technology that's talking about inventories and what to make, presuming customers are going to show up and order relative to what the AI tells them and managing shift roles and whatnot. And the second thing that's become more important: worker social skills, spontaneous communication, the ability to deal with strangers, being comfortable in groups, delegating and receiving instructions. And we are not good at teaching either of those things. And the lack of a connectivity between employers and educators is preventing us from confronting the pretty harsh realities that are apparent in the workforce today.

Jason Altmire ([04:05](#)):

You've written a lot about the skills gap, but in particular, you talk about the middle skills gap. Can you talk about what distinguishes that?

Professor Fuller ([04:15](#)):

Middle skills, Jason, are jobs that are defined as requiring something more than a high school diploma, but something less than a four-year degree. So they're very often skills that require certification, a license, but definitely require training. Whether you're going to be an MRI tech or a welder or in a lot of states, even a cosmetologist, you need to get hours of training and learning beyond high school. Middle skilled jobs have been the principal target for cost reduction in the United States historically. Why is that? A lot more unionized in the private sector, but also it's been really hard to automate higher level white collar jobs, particularly those taken by college graduates usually. And it just doesn't pay to automate very low skill jobs. We do have robots that can make hamburgers, but why would you spend all that capital to do it?

Professor Fuller ([05:15](#)):

In middle skills, what's happened is that is where very often technology is showing up at a rapid pace because of the same logic that left a lot of those jobs to be off shored or outsourced. There's enough money there. People are making enough money that if I can make it more productive with automation, it's probably going to be worth my investment as opposed to the hamburger flipping robot. Also, more and more middle skills jobs as the US has become more of an information society and a services society as opposed to an industrial society require a higher level of social skills because usually those jobs are interacting with other human beings. And that's where the misalignment of skills providers, particularly educators and employers start showing up. And one thing that's very important to understand when companies can't find somebody to do a job or do it properly, it's not like they throw up their hand and say, "Oh, I guess we won't grow. Oh, I guess we won't adopt that new technology. Oh, I guess we won't launch that new product line." They find another solution.

Professor Fuller ([06:24](#)):

They can find it in more automation, which displaces still more middle skills jobs. They can find it in more offshoring, which reduces US middle skills jobs. They can find an outsourcing services, some type, but we still have a lot of pressure on the economics of that middle income distribution, which is where the American dream grew up. And so the [inaudible 00:06:52] we see of the workforce today is both a function of the shift to an information economy, but also this relentless attack on high cost labor in the middle of the distribution.

Jason Altmire ([07:03](#)):

And because this is such a difficult issue to address, it's so challenging. The Harvard Business School has created a multi-year project called Project on Managing the Future of Work, which you lead. Can you tell us a little bit about what that project is about and what you're focusing on in that work?

Professor Fuller ([07:21](#)):

Well, I co-lead that project, Jason. And what the project focuses on is really an extension of the way we view our mandate at the Harvard Business School. We say we're trying to educate leaders that are going

to make a difference in the world. We have a very, very large representation in business leadership globally. We're a school that's had 35% of our students be international going back even when I was a student at HBS. And what we are doing is looking at the issues about the future of work that we think an informed executive, a business executive, a political executive, someone running a not-for-profit, a social entrepreneur that's trying to build an entrepreneurial venture, what do they need to know about this? And we feel that's our home field advantage. We know how people lead big complex organizations or people who aspire to build one think what their burden of proof is.

Professor Fuller ([08:25](#)):

And we've done quite a lot of research that you cited earlier, which is all available on our website, *Managing the Future of Work* at Harvard Business School. You could just Google my name, which looks at questions really very much from the perspective of a practitioner. We do create some scholarly articles, but that's a very small percentage of what we do. We want to write things that a cabinet secretary, state or federal level, a CEO, an entrepreneur, a trustee of a foundation, a member of a board of directors can read and understand one of these complex phenomena that are really changing the nature of work in the developed world.

Jason Altmire ([09:11](#)):

All of those people that you just listed as being interested in this topic, when you think about the public policy and thought leadership implications of this subject, we always come around to discussing community colleges and the role that they play in this skills gap. And you collaborated on a survey and report that studied the skills gap in partnership with community colleges and employers, and you had some really interesting results. Can you talk a little bit about how that study came about and what the findings were?

Professor Fuller ([09:44](#)):

Well, it came about as a function of the fact that I collaborated with some other institutions and researchers historically on some working community colleges. And that left me a little unsettled. And particularly as I dealt with people in state government and on Capitol Hill, there was just a general assumption that community colleges were the obvious way to solve the skills gap and that if there was a problem with community colleges, it could be solved by free community college tuition or by other forms of increased funding for community colleges. And I wanted to get to the bottom of that a little bit because there were some community colleges that were so incredibly well reputed in terms of their ability to help students make a successful transition from education to employment. And as I met with leaders in the field, what was eerie is, it was the same 20 or 30 names every time: McComb, Northern Virginia, Wake Tech, San Jacinto, Lone Star, Mesa, Maricopa, Valencia, and those are all... and Monroe, I've left off a couple of dozen and I apologize to any listeners who feel they ought to be on that list.

Professor Fuller ([11:07](#)):

But we have a thousand substantial and 1400 community colleges in the United States, and I wanted to understand what the overall impression of community colleges were among employers and the overall impression of employers among community colleges. And that led to our report, the *Partnership Imperative*, which was just published earlier this year, two or three key findings. The first is that while companies account community colleges as a key source of talent, it's just one of several sources, and this is a big change from the 1990s because of things like Indeed and Monster and other job boards,

even LinkedIn. What we find is companies have many different avenues to identify talent now, many more than they did even just 25 years ago. The second is those job boards have caused employers to be a little bit lazy about thinking ahead. It's like they grow up in a home that always had home cooked meals for dinner, and now they're used to DoorDash. So they didn't think about the ingredients for dinner tonight or the recipe for dinner tonight.

Professor Fuller ([12:22](#)):

And that has led them to think of community colleges as doing a perfectly acceptable job at what they want them to do. But when you start peeling the onion, what you see is employers are saying, "I don't think a lot of the faculty in community colleges are well-equipped to teach what I need taught. I don't find community colleges able or willing to provide skills that I suddenly find myself needing what I go to ask. They are not interested when I go and say, 'I have five workers that need to be upskilled.'" In many instances, they tend to think of community colleges and community college graduates as, as they say in horse racing, also reins. We really prefer the four-year degree. We really prefer people that have a four-year degree. We'd rather have a relationship with the local... it could be a local, state or private college than with the community college.

Professor Fuller ([13:21](#)):

On the community college side, what we found is they are falling over backwards to try to get better higher levels of collaboration with local employers. They vary substantially in the sophistication of their approach and the resources they can dedicate and their understanding of what employers want and expect. And they get very frustrated with employers, although they worked very hard to disguise it with employers showing up and saying, "We need 50 of these yesterday, and if you can't provide it, you're not doing your job." They get frustrated with employers showing up and saying, "I need this for 25 people now, but I can't commit to anything beyond that." They get very frustrated that employers aren't coming to them and talking about their anticipated needs, providing some help accessing expertise, equipment, asset software licenses that are hard for the community college to afford.

Professor Fuller ([14:22](#)):

This is made even more complicated by the fact the community colleges and businesses on the whole, they speak a mutually comprehensible language, but with lots of nuances that get lost in translation. If you see someone from Central America speaking to someone on a street in Madrid or even a French Canadian on a street in Paris, you'll often see that people are arching their eyebrows and cocking their heads because they kind of get what you're saying, but they don't really understand it with the type of texture you need if you're going to have an effective partnership to get more people on the pathway to economic independence and economic security, which is what we need.

Jason Altmire ([15:10](#)):

What do you think are the public policy implications of these results? They're interesting. Some of them are surprising and may be counterintuitive even. If this lands on the desk of a member of Congress or somebody in the Department of Labor or Department of Education, what would you hope they would do with this information?

Professor Fuller ([15:30](#)):

Well, the first thing I'd say, Jason, is if I get to have one conversation with one person, it's a newly elected governor. States are where this happens. They run the community college system. They have a direct line of sight to K through 12, and they're a little bit of what are the Feds going to figure this out? I have a prediction, never. So we have to start making it happen locally, which is also appropriate because local economies are very different and even regions of states. If you are in western Colorado and you're not in the hospitality industry, the tourism, the skiing industry, the summer hiking and fishing industry, you look a whole lot more like Wyoming than if you're in Denver. And so what I'd like governors to do are the following: first of all, let's just acknowledge what we have now isn't working for enough people. So we're going to tweak and twist and add a little funding and not going to get us the type of change we need.

Professor Fuller ([16:35](#)):

The second thing I would say is I'd like them to start experimenting and recognize that aspiring workers are very different. You have everything from recent immigrants to people who've lost their job and need to get re-skilled to recent high school graduates. One size fits all solution for that diverse type of population, setting aside English language skills, gender, race as another form of diversity isn't going to work. We need to get... political executives should focus on making the market work a lot better as opposed to putting in programs where they're going to decide what gets taught, what the skills are and what we're going to develop. They ought to be providing positive incentives for employers to offer compensated work-based learning and make that integral to the programs. They ought to greatly reduce the bureaucracy associated with authorizing new programs.

Professor Fuller ([17:36](#)):

Community College provosts and chancellors go to incredible odds to avoid having to go to their State Department of Education to get a new program authorized. It takes forever. It's very demanding. Oftentimes, demand goes elsewhere while they're trying to figure out how to do it. I think we do need more funding, but I'm very skeptical of free community colleges in answer. The vast majority of kids that go to community college are eligible for Pell Grants, they're eligible for loans. And if they were taking those loans to get on a pathway to secure good paying employment, the loans are not onerous. But if we throw open the doors, we'll have even more students, which we can argue as a positive, taxing the limited resources of the community college where all they might be getting is some additional tuition and not really speaking to the issue, which is how do we get more career and technical education available to more kids that is tightly linked to good paying jobs in their locale? That data is not readily accessible to students. We need to make it accessible to students, caregivers, parents.

Professor Fuller ([18:51](#)):

We need to be ensuring that schools have programs for the jobs that exist locally as opposed to fanciful programs, either video game writing, authorship programs... if you're not doing that in Seattle or in Los Angeles or in Stockholm, you're in the wrong place. We need much better data about the employment in field of study results, and we really need to be incenting employers to launch workday learning programs, to provide resources to their local schools, to band together. In a lot of communities that employers are worried about talking about their collective needs because they're worried that they get accused of some type of effort to fix wages or something, remove barriers like that. Employers, if we had a system that was more responsive to their needs and make them more familiar with how the system works, they would have fewer requests that can't be fulfilled and more interest in supporting the

system out of a desire to do well with their business. They can do good by doing well, and we shouldn't stand in the way of that. We have to enable it.

Jason Altmire ([20:12](#)):

When you think about the pipeline to these high demand professions, and we're talking about community colleges, another important provider of graduates and new workers is the for-profit sector. And I was just wondering, what do you believe is the role for for-profit career schools in helping to fill this skills gap in those high demand professions?

Professor Fuller ([20:34](#)):

I think they have a role, and there were real well-documented excesses the Obama administration worked to put right, but many people hear for-profit and hear, evil, conniving, not worth it. A lot of the for-profits, about half of them have really outstanding results. Now, what's an illustration of that? Schools that teach people how to maintain and repair truck engines, that's called being an auto diesel mechanic. Why does the private sector dominate that? Because first of all, it's usually about a 10-week program. So often it misses the requirements of Title four of the Higher Education Act for loans and funding. And by the way, if I could do one thing, it would be to rewrite Title four of the Higher Education Act and next reauthorization, if that ever happens. But you have to have several tens of \$150,000 heavy duty truck engines, and they need to be changed to be the new models regularly and need the diagnostic equipment.

Professor Fuller ([21:47](#)):

So you walk into one of those schools, you are looking at three or 4 million dollars of hardware on the floor to teach the students, and you have to replace a quarter of it every year. Where's the community college going to get \$4 million upfront in a million dollar for truck engines and trucking tools every year in their budget? Never. So they have a role. We ought to be looking at their success for insight into how to create more successful programs in community college. Educators do tend to be a little bit dismissive or turn up their noses at that as an idea. And I understand that educators don't want to be told what they're about is mass-producing future employees. But if you ask the students why they're at school, it's to get a job so they can be economically independent.

Professor Fuller ([22:37](#)):

I want to add one other thing, Jason, which I think is an important development, which is we now see large companies, and Google would be the typical example, that are working to create curriculum that they will give to community colleges. And that's a very important development because it's a recognition by Google that the skills system is just not keeping up with the needs of their customers. And if they can create more IT literate people who are good at project management, could do IT maintenance, but also understand the marketing tools of Google, it's a win-win-win: a win for their customers, a win for Google, a win for those workers. Whether that can get beyond tech is an interesting question because we live in a world where there're 10 to 12, really huge technology company, which virtually all employers use: Salesforce, Workday, SAP, Oracle, Google, Facebook, Microsoft, and the big cloud providers like Amazon.

Professor Fuller ([23:44](#)):

But because those companies have such dominant market shares, a student who knows how to use their technology is going to be able to find work. That's much less true if you talked about diagnostic equipment or lab work in healthcare or advanced manufacturing work.

Jason Altmire ([24:00](#)):

This has been incredibly interesting and insightful, and I feel like this is one of those conversations we could talk for an hour or more and really get a lot out of it, but this has been Professor Joseph Fuller. He is the professor of practice management at Harvard Business School, and he is the faculty co-chair for the Managing the Future of Work Project at Harvard. So Professor Fuller, thank you very much for being with us.

Professor Fuller ([24:28](#)):

Jason, my pleasure.

Jason Altmire ([24:32](#)):

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