

Beyond 'College or Bust': Apprenticeship as a Postsecondary Path to Opportunity

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Diane and Michael are joined by Ryan Craig, author of [Apprentice Nation](#) to discuss the earn-and-learn alternative to the traditional tuition-based higher education pathway. They address the current state of apprenticeship in the US, its role in an increasingly automated world, and how to incentivize the development and use of apprenticeship programs so they can scale access to opportunity.

Diane Tavenner:
Hey, Michael.

Michael Horn:
Hey, Diane. How are you?

Diane Tavenner:
I'm good. How are you feeling about 2024?

Michael Horn:
I think I'm decidedly in the holding-my-breath-and-wait-and-see camp. What about you?

Diane Tavenner:
That resonates. I'm trying to be optimistic here. Part of me feels like 2024 is a good number, maybe a good lucky number, and potentially good year. And there's some signs for hope. And personally, it's a building year for me. And so I like hard work and measurable growth and all

of those things. So that all feels good. And the realist in me recognizes we've got a lot of big problems that we're facing as a world right now and some struggles in the cracks in our foundation. And so I want to be real about that. And so I was thinking about, if I had to title it, what would it be? And a few years back, I wrote a paper with some friends that was called "Dissatisfied Yet Optimistic." And so maybe that title still holds true, and maybe it's going to be the truth of this conversation we're about to have today, which I am super excited about. And so let's get to that.

Michael Horn:

Yeah. No, I know you are. I'm excited because we're going to bring Ryan Craig on the show, longtime friend of mine. We got to meet probably about a decade or so ago in the education world. He's the founder and partner at Achieve Partners, originally called University Ventures Fund, but is a PE firm in education. He's written several books, many of which I wish I had written before he did, about [A New U](#), disruption and things of that nature in higher ed. And his latest, of course, is *Apprentice Nation*. It's a great book. I've had him on my podcast, the Future of Education, but we really wanted to have him on Class Disrupted because the topic that he's gone deep on over the last several years has been around these questions of apprenticeships and alternatives to the college for all mentality that has really gripped, as, you know, ed reform over the last several decades. And I think Ryan gives us perhaps the best picture of what one of those viable alternatives to the system might be. And I think, frankly, it relates well to your startup also, Diane, so selfishly - I think our audience will learn more - but I also think you will enjoy the conversation. So, Ryan, good to see you. Thanks for joining.

Ryan Craig:

Thanks, Michael. Diane, great to see you. Thanks for having me.

Diane Tavenner:

You, too. Well, let's jump in. As Michael just said, Ryan, my new work that I'm engaged in is really trying to find alternatives to a direct to four-year college pathway for young people and apprenticeships are, in my view, potentially the most promising of these pathways, or could be or should be the most promising. And so I'm excited to talk about them today. I thought before we got started we could just get some definitional stuff out of the way so people know what we're talking about. And so you talk a lot about earn plus learn or earn and learn pathways. Just tell us what that is. What does that mean to you? What are we talking about here?

Ryan Craig:

Sure. Well, as a category, I guess earn and learn is kind of the opposite or alternative to what I would call train and pray, which is sort of everything that we've had until now, which is post high school you're paying tuition, likely taking on debt for some kind of educational program or pathway, and you're taking a financial risk, but you're also taking an employment risk because there's no guaranteed employment or really any employment outcome at the end of the road. It's train and pray, earn and learn is it's the job first. And that's really where apprenticeship is different. And you say "the most promising," and I would agree because it's really the only

alternative pathway that truly levels the playing field because it's a job. An apprenticeship is a job first and foremost, where you're being paid a living wage and you have built in formal and informal training as well as wage and career progression with the apprenticeship. And if we're talking definitions, I'm often asked, well, what's the difference between apprenticeship and internship? And the difference is sort of what comes first. With apprenticeship, it's the job first. You're applying to an employer for a job and the training is sort of second. It's built in, but it's sort of secondary to the job. An internship is obviously a work experience, but it's in the context of an educational program. So you're applying to typically a degree program and either during the term, if it's a co-op program, or over the summer, you're participating in hopefully a paid internship, and then you go back to your educational program. So it's educational program first, job second. But really, unlike apprenticeship, there's no sense in which, or it's rare where the internship sort of automatically becomes a sort of full-time job with a career, whereas apprenticeship, that's exactly what it does. Apprentices don't finish their apprenticeship and then sort of go somewhere else. They just continue with the company as a regular old employee.

Diane Tavenner:

Yeah, that's so helpful. And today we're going to focus on apprenticeships. And so can you just give us a sense of where are we in the US right now with regard to apprenticeships? I think a lot of people have some understanding or sense that in Europe this is a big thing, lots of apprenticeships and apprenticeship model. But where are we in the US?

Ryan Craig:

Well, you'd be correct. We're last in the apprenticeship league tables. We are last among developed countries and the book really explores sort of where that is. So in terms of numbers, we put half a million civilian apprentices in the US. It may sound like a big number, but it's only 0.3% of the workforce. So your listeners won't be surprised to learn that the giants of central Europe, Germany, Austria, Switzerland, they do ten to 15 times better than we do as a percentage of the workforce. So they're at three to four and a half percent of the workforce. But your listeners probably will be surprised to learn that the UK, Australia, Canada, countries that aren't really sort of associated with apprenticeship in the public mind, they do eight times better than we are. And a generation ago they did it. A generation ago, they looked a lot like the US in terms of having a small apprenticeship sector, most of which was in the construction or building trades. About 70% of our 500,000 apprentices in the US are in the building trades. But today it's very common in those countries, in the UK and Australia, to launch a career in financial services, tech, healthcare as an apprentice, whether or not you have a university. You know, the question that I pose in the book is how did they do it? And how come we haven't figured out how to scale apprenticeships across the economy.

Michael Horn:

Yeah, Ryan, on this podcast we talk a lot about sort of alternative post high school pathways that aren't direct to four-year college, alluded to this earlier. And the need for K-12 to sort of move away from this college for all or college or bust mentality. Clearly in those visions you just painted, college is still a big piece of it. If we're talking 3% of the workforce, even in

Germany, it's not apprenticeship or bust. But why do we need to get out of this mentality of college for all.

Ryan Craig:

Well, because college is not doing a good job serving the students we should care most about. It's certainly doing a good job of serving the children of the wealthy. They do fine. Whether or not they get into the most selective schools or just reasonably selective schools, they do just fine. But the students that we should care most about, underprivileged first-generation underrepresented minority students aren't being well served by the current system in terms of completion rates, in terms of affordability, obviously, as demonstrated by the fact that really the overwhelming public policy issue over the past three years in higher education at the federal level has been debt, student loan forgiveness, which is entirely backward looking, not forward looking. So we're trying to redress the problems we face without fundamentally addressing the structure of post-secondary education. And then, of course, the issue I've been most focused on over the last decade, which is employability, where we have a real problem of underemployment college graduates coming out...And it's typically not your graduates out of computer science and engineering programs. They're typically finding their way. But students who are coming out of what I would call lower value or less remunerative or less employer connected programs. If they graduate, they're graduating into underemployment in many cases, and they make less, and it's persistent. If they're underemployed in their first job, two thirds of the time they're underemployed five years later. Half the time they're underemployed a decade later. And many reasons for this one is that colleges and universities aren't doing a good job of keeping up with the digital transformation of the workforce and that entry-level jobs look a lot different now than they did even ten years ago, let alone a generation ago, in terms of the skills that are being demanded. But another big problem that we're going to see over the next five years is what I call the experience gap, where employers are increasingly looking for experience for what used to be entry level jobs. So think about cybersecurity. A decade ago, a college graduate with some technical background could probably find their way into getting a job at a security operations center as a tier-one analyst. So your first row of defense, dealing with alerts, figuring out which ones you could resolve yourself, which ones need to be elevated, and which ones you could just disregard. Today, that job has basically been automated away. And the entry level, the lowest level jobs in the security operations centers are what used to be tier two analysts, which demand a CISSP certification, which is three to five years experience. So the idea of an entry-level job in cybersecurity is kind of an oxymoron. And my concern is that generative AI is going to do to every entry-level job what automation has already done to cybersecurity. Where I think back to my first good job as a consultant, where I spent, I don't know, 35 hours a week building PowerPoint presentations and no one is going to want their entry-level consultant spending 35 hours a week building PowerPoints anymore. You're going to maybe spend an hour a week and let Chat GPT do the work, and the expectation is you'll be spending the bulk of your time doing much higher value product work, client work, business development work, what have you, but which you won't be able to do with that experience. So we're going to start seeing for these entry-level jobs, as we have for cybersecurity, an increasing experience requirements. Which means that we need to figure out a way, unless we're willing to allow this sort of experience chasm to develop, we

need to figure out a way to integrate real work experience into the educational programs and pathways we have starting at the high school level. But certainly for college, and apprenticeship is the best way I know to do that because an apprenticeship is a job where you are hiring a candidate based on their potential, based on their interest, based on their diversity, but not based on their specific skills or experience, because they're going to gain that over the course of the apprenticeship. So it is the most promising, but it's going to be increasingly important and promising for that reason as a strategy for bridging this experience gap that we're about to see.

Diane Tavenner:

Ryan, what you are sharing is I've spent the last 20 plus years in K-12 education in high schools, really for decades, focusing on ensuring all of our students were accepted to a four-year college. I thought that was the right thing to do and the thing that was going to lift them, especially serving mostly first-generation college-going students. And then what you described is what we started to see in our own data, that if they made it through [college], they were underemployed on the back end, they were carrying significant amounts of debt, and depending on what program or major they went into, it really mattered [for] what their prospects looked like outside. And many of these students don't have the social networks to gain the experience that you're talking about as being so valuable. And so I guess one of the questions I have as a recovering college-for-all K-12 educator is what do you think people like me should be doing right now in the high school space, particularly what are the top one or two things that we could do to start shifting in the right direction?

Ryan Craig:

Yeah, well, look, I think CTE and career discovery at the high school and even middle school level are a casualty of this sort of college-for-all mentality. We've really allowed it to wither on the vine. I did a piece a couple of months ago about the fact that the sort of AP honors industrial complex, with its higher GPA, college is the only pathway. You sort of have to take those courses and you have to take that path, which leaves no room for...CTE kind of withers on the vine in that case. But I get it right. If there aren't alternatives for your college, then what's the point of career discovery at the high school? So it is sort of a chicken or the egg problem. I'm very focused on how do we build out that post high school infrastructure of earn-and-learn pathways so we can kind of get to where we are in the UK now, which is, this last fall, for the first time, graduating high school students in the UK could look at the UCAS portal, which is kind of the common app of the UK, and see listed alongside all the university programs, all the apprenticeship options. It's in one portal, in one place, and they can look with their guidance counselor and they can say, "Okay, here are some real earn and learn options that I might pursue." Here are some tuition-based options I might pursue. So that's the ultimate goal. But I think beginning to work on CTE and career discovery. I did a profile of the superintendent in Winchester, Virginia that Ted Dintersmith introduced me to, who just is doing an incredible job of really elevating CTE and almost making it mandatory that every student has to pursue a CTE pathway. And so I think then we need to prime the pump both on the supply side and the demand at the high school level.

Michael Horn:

So, Ryan, I want to stay with that just for a moment, because I think part of the narrative that we often hear when people are skeptical of the non-four-year college pathway is - and I can't count the number of times I've been on a panel with college presidents, of course, being the ones to say this - "Well, the people that are clamoring the loudest for alternatives to college are those who are going to send their kids to college." And so they have this real skepticism that it's for them, but not for me. Why are you relegating them, if you will, to something lower? In *Apprentice Nation*, you make a pretty compelling counterargument around the data on this, but I'd love you to just walk us through that a little bit more. And part of this, I acknowledge, is we only have 500,000 apprenticeships in this country. There's not really a dataset in this country to sort of play with, but walk us through it.

Ryan Craig:

Yeah, look, I just think that's inaccurate. I mean, I hear every week from a charter school organization that is focused on how do we help build new, how do we facilitate pathways, how do we build a sort of plus-two transition program to something other than college? Because like you, Diane, they see their students graduating and either not completing or completing and graduating into underemployment, so it's clearly not working for everyone. So, I don't buy that argument.

Diane Tavenner:

Earlier this season, we had Todd Rose on the podcast, and a lot of his research is showing that you are not alone, that students, families, and, in fact, most Americans actually believe in earn-to-learn options. They want education to have a tighter connection to work. They actually care about career and work, and they want education to be a means to that end versus an end in and of itself, which is sort of how it has evolved to be positioned. As we've both said multiple times now, apprenticeships are sort of the most compelling model of this. And so, I'm curious, they're not very prevalent yet. I'm wondering what we can do about that. And I also just wanted to tell you about an experience we had. We had a group of interns in my new company, and so we actually asked them to do this little experiment. They're high school students, and we gave them 100 apprenticeships in California that theoretically they should be eligible for as they graduate from high school. The apprenticeships are open to 18+, and we asked them to try to figure out how they could apply to and if they had a chance at these apprenticeships. And so of the 100...It was mind boggling. This is not a friendly process at all. They go to the website. There's usually like a phone number or an email that they have to call or email, just a cold email that they have to send. So they email 100. They only get responses from a third of 100. Out of 100, only 30 responses. And many of them were redirecting them back to look at the website, which is circular because the website says to email these people. And when they actually talked to people, they were often told "It says 18, but we don't really want 18 year olds." And so I'm just curious. It seems like we have a lot of work to do, so much work.

Ryan Craig:

Experience, so many things there. So, first of all, I don't know what list they were using, but if they were to use the most authoritative list out there, which is the federal Department of Labor Rapids database of registered apprenticeship programs, they'd be in for a disappointment because I use that database as the basis for the appendix in my book, which is a directory of apprenticeship programs outside the building and construction trades. Not to say that those aren't good apprenticeships, but the point of the book is: "We're actually doing okay in the building trades. How do we expand apprenticeships beyond the building trades?" So there are about 6000 apprenticeship programs in the US in the Rapids database that are not in the construction trades. And so I asked the question, well, how many of those are actually real? Meaning where I could apply for a job as an apprentice tomorrow and I'd be considered because they're actually hiring apprentices. And so we went through that whole list and of those 6000, only 200 are real. The rest of them are what I call paper apprenticeship programs, which are primarily a kind of relic of how we've been funding apprenticeship programs at the federal level. So one reason we're doing so poorly is that the federal government, while they've increased apprenticeship funding over the last decade and they've been actually trying to fund intermediaries, which is one of the key points of the book, which is that employers don't do these things on their own. Colleges don't do them on their own. They're usually set up and run by intermediary groups. Like in Germany, it's chambers of commerce that do most of the work of setting up and running these programs. In the building trades, it's unions who are doing it. So the question is, who are those intermediaries going to be? So, the Department of Labor has tried to identify and fund intermediaries, but of course they've been funding groups that are really good at applying for Department of Labor grants, namely workforce boards and community colleges who get these five or \$10 million grants. And then here's what they do. They develop the curriculum for the formal training, the related technical instruction, RTI component of the apprenticeship. They register the program and then they sit on their hands and wait for an employer to come along and say, "Wow, if only I could find curriculum for the RTI, I'd launch my own apprenticeship program." But of course, that's the easy part of apprenticeship. The hard part is convincing an employer to hire and pay a worker who's not going to be productive for a period of time. And all the other stuff too, the mentoring and the recruiting and serving as the employer of record, all that stuff. So as a result, that's how you get from 6000 down to 200. But then even if they're reaching the 200 who are actually hiring you're absolutely right. Apprenticeships are not designed sort of post-high school right now, largely, I think, just because there's so few of them. So every time you actually launch an apprentice, a cohort of apprentices, and I can say this is at achieve, what we do is we buy companies and sectors where there's a talent gap in tech and healthcare, and we build apprenticeship programs into those companies so they become talent engines for their talent starved sectors. And I can tell you that every time we launch a cohort, we have 100, 200, 300 applicants for every seat in the cohort, which is so much as we would like to make them available to 18-year-olds. It's hard for an 18-year-old to compete with a 23- or 24-year-old who's applying for that apprenticeship program. We're probably going to hire that 23- or 24-year-old. And this is one of my pet peeves, which is that if you talk to the philanthropies, the big philanthropies who are involved in apprenticeship today, and I'm not sure, well, maybe I'll name names. Gates Foundation, they actually don't care about apprenticeship. Broadly, all they care about is youth apprenticeship, which is for kids in high school, which sounds good, but the hard part is, if you

can't convince an employer to hire a 24-year-old apprentice, you're never going to convince them to hire a 16- or 17-year-old who's still in high school. That's like an order of magnitude more difficult to do. And so we need to focus on building the apprenticeship infrastructure we need for regular role apprenticeships before we begin focusing on what are called youth apprenticeship programs. So, yeah, the system is not set up today post-high school. And a big reason is we're just not funding it like in the UK. At their peak, they were spending four or five billion pounds a year on apprenticeship, which, based on the size of the US economy, would be more like \$40 billion a year. We've been spending less than one hundredth of that. So, if we've been spending \$400 million a year, that's even a smaller fraction of what we spend on a tuition-based post-secondary education. That's one thousandth what we spend on. So it's one hundredth of what we should be spending on apprenticeship. It's one thousandth of what we do spend. And if you compare the funding that an apprentice receives, the public funding that an apprentice receives, compared to a college student, for every dollar of taxpayer support that apprentice is receiving, a college student receives \$50. Those ratios are just way off. Every other developed country is like an order of magnitude or more. In the UK, it's two orders of magnitude higher on earn and learn an apprenticeship than we are. And what does that do? Well, it makes a big difference because it allows intermediaries to market and sell apprenticeship programs to employers, which is what's needed. So, in the UK, you have apprenticeship service providers like Multiverse who can go to big companies and say, we'll set up and run an apprenticeship program for you. And it's totally turnkey. All you need to do is put this apprentice on your payroll at the reduced apprentice wage. And that sounds pretty good, but everything that Multiverse does is covered by the government here. Multiverse does the same thing. When they go to a US employer, they say, oh, but it's going to cost you \$15,000 per apprentice in program fees because there's no funding associated with apprenticeship. And so you may say, well, what about the \$400 million that we're spending? That's not going to intermediaries like Multiverse. It's going to community colleges and workforce boards who aren't currently building apprenticeship programs. Part of the problem is that we viewed apprenticeship as just another workforce development or training program, and we've lumped it in with all these other training programs, most of which are pretty ineffective, and other countries don't do that. Other countries have a separate funding mechanism for apprenticeship because they recognize they're different, they're jobs. They're jobs first, and they start with an employer willing to hire an apprentice. So a lot of what the book is about is sort of policy fixes for this. Unfortunately, a month after the book came out, the Department of Labor came out with their fancy new apprenticeship regulations, which is 800 pages of new hoops that employers would have to jump through in order to register an apprenticeship program with no incentives whatsoever to do so, which is just the opposite of what needs to happen. We need to streamline apprenticeship registration, focus on the things that matter. Is it a good job? Does it have career progression associated with it and actually provide funding for it?

Diane Tavenner:

I read your recent piece on those regulations, and I will confess that I had a moment where I was like, oh my gosh, this feels exactly like my charter school experience, where we started in the right place, where we create schools that serve kids, name the outcome that you're going to get, and that's what you're held accountable to. But over time, we have been regulated

and reregulated and back to sort of the old system. And I was reading your piece about this 800-page set of regulation. I was like, this feels exactly like what I experienced as someone who was trying to do this in the charter sector. And it made me wonder. There's always interest groups. And look, I was reading through what you summarized. I get why they want people to do all these protective things and whatnot, not for bad reasons, but you have to balance the risk and you have to be thoughtful. Who are the blockers who's contributing to these 800 pages?

Ryan Craig:

Yeah, these are building and construction unions who would very much like to keep apprenticeship as their own little sort of private thing for the most part. And it's bureaucrats who have never worked in the private sector and actually don't know what's involved in convincing an employer to hire an apprentice. There aren't really...I mean, part of the problem is, up until last year, with the creation of Apprenticeships for America, which is this new trade association of apprenticeship intermediaries, there had been no voice for employers of apprentices. So we're working hard on that, but that's what's necessary, and we need to get the folks like the business roundtable and Chamber of Commerce in this discussion. So I'm confident that these regulations are not going to have the force of law as currently proposed, but they're just going the wrong direction. So there's a lot of work to do here. And it's so important to think of a country where we could have as many earn and learn options as we have tuition-based options. I think that it's a big reason why we have such social and political sort of discontent. You have almost half the country who sort of sees this bright, shining digital economy, but feels like these jobs are out of reach because they're told that they need to run the gauntlet of a four year degree, which can be five or six years in many cases, and with no guarantee of any employment outcome. And they just feel like it's unaffordable and unrealistic and life's going to get in the way, so why bother? And as I toured around the country talking about my book in the fall, I would start my talks with talking about what I call the song of the summer last summer, which was Rich Men North of Richmond, by Oliver Anthony, where basically he's complaining about his crappy job. And that's sort of what they. The only jobs available are these bad jobs that are breaking my back with no career progression available. And we need to address that. And it's such an obvious political benefit for the Democratic Party. I don't understand why the Democrats don't become the party of earn and learn and apprenticeship. They're not going to lose support among the university educated at this point. But we desperately need to support it, and obviously that's where the other side is getting their momentum from.

Diane Tavenner:

Let's stick with employers for a moment because what I'm understanding is the financial incentives are not there for them the way they are in other countries right now, at least, and we need to work on that. So what are their incentives to create and grow apprenticeships? How do we pitch this to them?

Ryan Craig:

Yeah, I mean, there are none really, today. It's just all cost, with the potential long-term benefit of beginning to develop a proprietary new talent source. But if you look at where apprenticeships are, where they exist today, outside the construction trades, if you look at my directory of my book, many of these are subsidiaries of Swiss or German companies where they've just been instructed by the head office to launch an apprenticeship program. But again, there's no funding associated with, like, technically, you can go to your local workforce board and apply for funding once you're a registered apprenticeship program and then you get on the state ETPL list. But it is a three-, four-, five-part process with no guaranteed outcome and very limited funding as a result. So most employers don't bother. So the way other countries have done it is you incentivize these intermediaries, you fund them, you provide formula-based funding, so they know every apprentice hired and trained, they get paid for it. And then in the UK, you have this ecosystem, this very robust, healthy ecosystem of 1200 intermediaries that are in the business of running around knocking on employers doors saying, "Hey, would you like us to set up and run an apprenticeship program for you at no cost to you?" That's something that lots of employers can get behind. You won't find an employer in the US that's sort of been similarly approached, and if they've been approached, it's going to cost them \$15,000 in program fees per apprentice. And so, no thank you. Or if they do, it's a sort of corporate and social responsibility initiative that is not going to scale. I was at a meeting at the US Chamber in DC in the fall and there were four or five Fortune 500 companies in the room and they were bragging about their apprenticeship programs and one of them said, "Well, we hired four cybersecurity apprentices last year, we hired eight." And it's a joke, right? Based on the size of these companies.

Diane Tavenner:

It's so not scalable. We've had many conversations with such good, well-intended people who are mostly working in the community colleges. So they've gotten these grants, as you said, to be these intermediaries. They have one little teeny boutique program that they're personally passionate about, and they're like this one person's running around trying to get employers to connect to their program. It's a one-person shop.

Ryan Craig:

We all know that academic institutions, including community colleges, are not sort of well set up as sort of sales and marketing organizations, which is what's required here. So almost a decade ago now, we had this innovation that we're going to connect this last mile training with staffing companies. We began buying staffing companies, and that was sort of the start of our workforce strategy. But that works really well because staffing companies have, they're already in the business of supplying talent to hundreds or thousands of clients who can't find talent. And so now why not offer new talent, entry-level talent as a product? So that's the mentality, I do think that we're going to see community colleges and perhaps even some four-year institutions figure this out in time. Apprenticeships for America has a grant from Strada to sort of chart a path for community colleges to become what we call high-intervention intermediaries, which are the folks who are actually actively selling apprenticeships and setting up and running turnkey apprenticeship programs for employers. So, I do think we're going to see the ASU of sort of apprenticeship or the WGU of apprenticeship. I do think that will happen,

but it's going to take a pretty sizable change from what these institutions do or are capable of today.

Diane Tavenner:

Well, that feels like the most hopeful we've gotten in this conversation. I want to be hopeful about this. So maybe we'll...

Ryan Craig:

We need to keep the vision in mind. The vision is like, it's all hope, right? I mean, you know, the idea of someone being able to sit at the end of high school and look at an equal number of earn and learn options, and that's something that I think politically everyone is in favor of. I don't care what your political...Who's against that? So the debate is really about tactics, right? And I think most people would agree that 800 pages of new regulations around apprenticeship is not the answer.

Michael Horn:

[It's] not going to excite people to come in...

Ryan Craig:

Not going to excite people to come in. New funding. We haven't talked about California. So California a year ago launched the first formula-based funding for apprenticeship in the country. Apprenticeship, innovation funding. So you, as an employer or intermediary, you get \$3,500 for every apprentice you hire and train, period. It's a formula, and that's exactly what's needed. If you think about sort of how we've built our post-secondary education system, our tuition-based system, it's formula-based funding. That the funding travels with the student. We need the same with earn and learn. The funding needs to travel with the apprentice. And that's part of what I wrote last week, which is we have to start being so obsessed...I get it, that folks on the left side of the aisle are obsessed, as a result of the sort of for-profit college scandals...There were a lot of them with making sure that not a single workforce dollar flows to a bad actor in the private sector. So, I get that. But we are truly throwing the baby out with the bathwater. If that's our primary focus here, there are ways in which we can safeguard enough and really begin to catch up with every other developed country here.

Diane Tavenner:

Well, I love that note as a place to wrap, at least for today. Feels entrepreneurial and hopeful to me, and it's possible, and we know how to do it. So thank you for being in this conversation with us. I hope we get to come back and have it again and again because we're making progress.

Ryan Craig:

You can count on it. We are making progress, whether or not I can tell you, if not at the federal level, at the state level, there are a whole bunch of states who are interested in making sure

that 20%, 40% of their high school graduates are able to access apprenticeships, and they have a willing partner on our side.

Diane Tavenner:
That's awesome.

Michael Horn:
Terrific. Should we do a quick wrap up with what we're reading or watching, if that works? Ryan, we're going to put you on the hot seat first, because being connected to Hollywood, you always have interesting movie recs.

Ryan Craig:
Well, I can tell you what I just finished reading, which..

Michael Horn:
Sure.

Ryan Craig:
This book by Margaret Macmillan called Paris 1919: Six Months That Changed the World about what happened that led up to the terrible Treaty of Versailles in 1919 and sort of set the stage for the next century of conflict everywhere in the world.

Michael Horn:
November 11th, if I recall, 1919 is the day.

Ryan Craig:
Yeah, so that was a terrific book. My wife is the showrunner, co showrunner of the Handmaid's Tale. So that's why I live out here in LA. But we actually like very different things, which is why we get along so well otherwise. But I actually just discovered the Hulu series, Fargo, which is terrific. I know lots of people have. I'm only on season two, which actually I like even better than season one. I'm from Canada, so I love the whole sort of north central aesthetic. I feel very at home.

Michael Horn:
Love it. What about you?

Diane Tavenner:
Well, I watched a movie this past week on a strong request from a friend because he wanted to talk about it, and it's called Leave the World Behind. Has some big star power behind it. So Julia Roberts and Ethan Hawke and Mahershala Ali and even Kevin Bacon, and I'm sort of speechless. It's provocative, for sure, and about a warning sign to all of us, I would say, and beautifully done in a lot of ways.

Ryan Craig:

A warning, like, if we don't get apprenticeships right, what will happen?

Diane Tavenner:

Exactly.

Michael Horn:

That's where I'm going to end mine at you all. You'll see where my headspace is for both of you. I've finished reading In Search of Anti-Semitism, which was written by Bill Buckley back in 1992, and then Bari Weiss, her 2021 book, How to Fight Anti-Semitism. Reading the Buckley book, I mean, Ryan, you were at Yale just after.

Ryan Craig:

I just want to say I saw Bill Buckley in 1992 at Yale playing harpsichord. He came to give a harpsichord...Nothing is more Bill Buckley than that. Like, I'm going to come play the harpsichord for the undergraduates.

Michael Horn:

Nothing is more so. But the echoes from 1992 to what we hear now were just crazy to me because Buckley's book was sort of anti Semitism used to be the domain of the right. We've been chasing it out, and here comes the left. There's growing presence on college campuses and among faculty. There's questions about what constitutes it, how does Israel fit in, what's fair criticism, what's not? It's very interesting. And so it's all widened my thinking. But I guess I would say maybe earn and learn is a way out of those conversations to something that actually helps individuals make progress. And so that's my hope for the new year. For all of you listening, and Ryan, thanks for joining us and for all of you listening, we'll see you next time on Class Disrupted.