

Conversations on Economic Inclusion with David Wintrich

Dionissi Aliprantis

This is Conversations on Economic Inclusion. I'm Dionissi Aliprantis, the director of the Program on Economic Inclusion here at the Federal Reserve Bank of Cleveland. In our program, we aim to bring together researchers and practitioners to learn about what it takes for more people to participate more fully in the economy.

As some workers in declining industries look for a fresh career, coding boot camps have sprung up to offer a solution. Billed as a fast way to gain the skills needed to access coding-related jobs, many boot camps have come under scrutiny for hiding poor performance by their graduates and not delivering the promised skills effectively. But some programs have put transparency first, and their track record appears to hold up under scrutiny.

To learn more about how one such program delivers for its students, I spoke with David Wintrich, who is the co-Founder of Tech Elevator. He told me that it takes more than just traditional coursework to successfully upskill workers into a coding career, although those courses are a part of students' success: Tech Elevator's approach has focused on figuring out what essential skills need to be taught. They have also actively recruited employers to look at their graduates, and some of those employers are impressed enough to have hired Tech Elevator to train their existing staff.

Before we get started, I should mention that the views expressed here are those of the participants, and not necessarily those of the Federal Reserve Bank of Cleveland or the Federal Reserve System.

And now, here's my conversation with David Wintrich.

Dionissi Aliprantis

How did you get interested in programming? And then what drew you to the field?

David Wintrich

Interestingly, although I do have a degree in computer science, I didn't originally go to college to study computer science. So I was originally a broadcasting major. So I thought, so here I am on the podcast, so really, this was the end goal. But I didn't really have a plan for that. I don't know if I thought I was going to be the weatherman or what.

David Wintrich

But I think that part of what landed me up in going to college with that as my major is that I didn't really have exposure to computers or anything like that growing. We didn't have a computer in my house when I was growing up. Didn't have internet.

Dionissi Aliprantis

It was a different time.

David Wintrich

Yeah. Or an email address or anything. America Online was a thing, but we didn't have that at home. It wasn't until I went to college that I started getting some of those things. And I very fortunately, and I think it was the first, second quarter in school, I took an intro to computers class. Not intro to programming, but intro to computers.

Dionissi Aliprantis

Turn it on. Here's how you use a mouse.

David Wintrich

Yeah. This is a word processor, this is spreadsheet, that kind of stuff. And at the end of that class, because it was the mid nineties and the web was this new, cool thing, they showed us how to build web pages using HTML. And I was just like, my mind was blown and I was just like, "Wow, that. I can do that as a job." That's super cool, because for whatever reason, the idea that I could type these weird, cryptic language into a computer. Yeah. And make the computer do things, that just really captured my imagination for some reason. Maybe it was too much Star Trek growing up or something. But I just thought that was really cool.

David Wintrich

And so I think what really drew me to the work and the field is I'm actually not like a big technology guy. I'm not a big gadget geek or anything like that, but I actually find coding and programming to be a creative outlet. I like building things. And so with the computer and with code, then there's just so many opportunities to imagine stuff and go out and build it and have an impact on people and the world around you.

Dionissi Aliprantis

I guess in terms of the rest is history, actually, we want to hear about that. So how did you get the idea for Tech Elevator? And can you tell me a little bit about its creation and about the kind of work that you all do?

David Wintrich

Tech Elevator is what's commonly known as a coding bootcamp, which basically means it's an accelerated vocational training program that takes folks with little to no prior technical experience and helps them gain the skills to do full stack web application development, and then connect with employers to find jobs.

David Wintrich

It was really interesting to me, despite not necessarily always being the most, we'll say, classically successful student myself, I had always had an interest in teaching. And so, anyways, I was just keeping an eye on this program. Also, the other thing was that I was working in the field at the time and we were growing a technology team and I was seeing firsthand how hard it was to find people to do the work. It was just really difficult to find programmers.

David Wintrich

And through colleagues around the country, I also became aware that it wasn't a Cleveland problem. It wasn't that we didn't have enough technology talent in Northeast Ohio. I mean, it didn't matter if you

were from New York or San Francisco or St. Louis or wherever, everybody had the exact same problem. So knew that a shortage of technology talent was in fact, a real problem.

David Wintrich

I could see firsthand that the need that we had in this area, like many others, and for technology talent, I had experienced through my own career, the impact it can have on a person to do work that they find engaging and challenging and rewarding. And this was an opportunity for me to help solve that problem and also to teach and do something entrepreneurial.

Dionissi

Okay. So that's the backstory on Tech Elevator. Now, how do you define success for Tech Elevator?

David Wintrich

We define success by our graduates finding jobs.

Dionissi Aliprantis

Pretty straightforward.

David Wintrich

Pretty straightforward. And our mission at Tech Elevator is to elevate people, companies, and communities. And so we've seen that when you connect folks who are hard working and talented with economically valuable skills, in our case the ability to do software development, that can change lives. And when those people are providing those valuable skills to companies who desperately need that technical talent, that also improves the prospects of local companies.

David Wintrich

And if people are doing good and companies are doing good, then it goes a long way towards helping to improve the prospects of our communities. And so again, I think one of the things that we got right at the outset is that we recognized that our product at Tech Elevator was not teaching somebody to code. Our product, was providing an on ramp into a career in technology.

Dionissi Aliprantis

And so what's the difference between those two? Can you elaborate a little bit?

David Wintrich

Yeah. I think when you define the objective as just, I'm going to equip you with these skills. Very often, in my experience, that's where most education providers, that is what they see themselves as. I'm an education provider.

Dionissi Aliprantis

And that doesn't seem like a terrible objective. I mean that seems like a very reasonable one to me.

David Wintrich

Yeah, no, it doesn't seem unreasonable. Okay, I've equipped you with an education with the skills and now you go and make of that what you will. Good luck out there.

David Wintrich

Well, that could lead to a couple different things. Or what I think of as perhaps even dysfunctions. One, you're not really held accountable for the relevancy of those skills or that education. Because you aren't ultimately, you haven't hitched your wagon to that student's goals. When a student comes to Tech Elevator, they're not coming to us out of just academic curiosity or because they want a new hobby. They're coming to us because they're trying to gain entry into a new career. And so we want to make sure that we're as aligned as possible with that student. And so we want to define our goals to be the same as theirs.

David Wintrich

But also by defining our success as someone finding a job and starting a career, that drives everything else we do. That drives our curriculum. It makes sure that we are always constantly keeping an eye on what jobs are out there and what are employers looking for in terms of skills and making sure that we're aligning our curriculum with that. It makes sure that we are devoting resources to cultivating relationships with those employers and making sure that there's a very efficient path to make introductions between graduates of our program and those jobs. It sort of informs what are all the other things that students need? Just knowing how to code doesn't necessarily get you a job. Especially when we're dealing with folks that, again, may have come up from any number of diverse backgrounds.

David Wintrich

Many of our students have college degrees, but many of them don't. Many of them have never worked in a "professional setting". Some of them maybe have never gone on any kind of interview process looking like what you're typically bumping into in corporate America. And so we spend just as much time focusing on interviewing skills and job searching skills and all those kinds of things as we do with the technical education.

Dionissi Aliprantis

I'm wondering if you can tell us about the range of students that you all have, that you work with. You mentioned barriers, I think, in the labor market. And I'd like to hear about those even more than, you mentioned the issue of interviewing, but I'm thinking about barriers to getting to you all. Can you talk about the barriers to you all? And what have you all learned, I guess, from working with different students about barriers to economic inclusion? So thinking about people's ability to participate in the labor market to really develop their skills. When we're thinking about maximum employment and thinking about how do we make the economy perform at its highest level possible? What kind of insights have you gained on relevant issues in terms of the students that you've worked with?

David Wintrich

If I just simply think about what is the most common barrier to attending a program like Tech Elevator, and we've gathered data, we've done the research, and as it would probably not be surprising, the biggest barrier for most folks is financial.

David Wintrich

But we've also looked at data and found that when folks actually do manage to get into Tech Elevator, because we have data on their prior earnings and all that kind of thing, prior education and so forth. Once they're at Tech Elevator, their prior income level, prior education has no bearing on how well they do within the program. So they are just as academically competitive, they're able to find jobs at a similar rate. Once they're graduated, they have the same kind of outcomes. That's a problem.

Dionissi Aliprantis

That's a pretty remarkable statement. And I think it's actually incredibly informative. So, let me see if I can repeat it to you in a way that you find correct. So you're saying that of the students that you have, so there's some process by which they come to you and that's probably not totally random, but once they get to you, students that maybe haven't performed in traditional academic settings as well, or students that may be in their current job, aren't making as much. And so you think someone that's making plenty of money, but decides to come to Tech Elevator, because they just want to change of pace versus somebody that's actually going because they want to earn more. You're saying that all those things that you might have thought were indicative of people's potential, it turns out, in your data and from your experience, that's not necessarily the case.

David Wintrich

Yeah. Earnings for sure. You said hadn't performed well in prior education. We don't know that. I don't know what somebody's GPA is or whatever when they come to Tech Elevator. But in terms of actual educational attainment, whether you have a Bachelor's degree or not, or a Master's degree or PhD or whatever, that doesn't really have bearing on your performance at Tech Elevator. So you can learn to code just as well, regardless. That is not a significant factor.

Dionissi Aliprantis

Wow. So that's quite incredible. And I guess maybe it's saying that there's more paths to opportunity out there than maybe we realize.

Dionissi Aliprantis

We had a conversation with Dan O'Flaherty, who's an economist at Columbia, who was talking about essentially the job recruitment process and thinking about companies. And he was saying something along the lines of large employers have this almost responsibility to go to check where their pipelines coming from. And that a lot of the times they find that it's profit maximizing to look into new places where the signals say from attainment or ... The way they are originally interpreting signals about people's capacities or their potential, maybe weren't right. And so you start looking under some of those rocks and you start seeing, oh, there's actually a lot of potential here.

Dionissi Aliprantis

How many jobs do you think are ones where that might be appropriate? But what do you, in the cases that are maybe a little bit gray or where it might a more general skillset or a range of skills, in which case I think about it from the perspective of an employer where it might just be tricky that you get a ton of applications and how do you sort people and maybe just a quick, easy way to do it is to say, "Okay you have the degree, you don't." I mean, yeah, I guess the question is, how do you think about that development in the labor market? What are some ways where it can expand? And what would facilitate it maybe in more general settings?

David Wintrich

When you think about the college degree requirement, why do you have it? You said, "Well, okay, maybe you have some jobs that have a very specific skillset necessary, and they have other jobs that, well, it's more of a general thing." And so you're looking for a college degree because, I don't know, the talk track has always been, "Oh, well it teaches you critical reasoning skills," and all these kinds of things.

David Wintrich

And first of all, I'd like to see the peer reviewed study that shows that there's an actual cause over relationship between going to college and developing critical reasoning skills. In my own personal experience, I don't know that that's necessarily the case. But we do need to have that evidence, because anytime you're putting that requirement on a job, we know that there is a lower level of college degree attainment amongst certain populations within this country, people of color than amongst the white population. So as soon as you put that requirement on a job, you are knowingly whitening the pool of people you're going to be interviewing. So that's right out of the gate. So you better have a darn good reason for doing that.

David Wintrich

And then second, when we consider the fact that for a lot of technical jobs and for a lot of employers, they have removed college degree requirements. Okay. These were jobs that used to have a college degree requirement, and now they don't. Well, does that mean do those jobs not require critical reasoning anymore? Do they not require all the other things that we tend to associate with college degree? And I would say, no. All I would say is it's strictly a supply and demand issue. It's that having that degree requirement in place was inhibiting that company's ability to attract sufficient talent to do the work that they needed. And so to your point, they have broadened the pool that they're looking at and found that like, "Hey, you know what? There's a ton of talent here that I was filtering out that are now actually able to help me and help my business."

Dionissi Aliprantis

So getting to the 14 weeks that you all spend with your students, can you tell me a little bit about what you actually do and what you prioritize in terms of the curriculum? And can you talk a little bit about these add-ons that I might be surprised to hear that you do in a coding bootcamp?

David Wintrich

As someone who has been a programmer and hired other programmers and hired junior programmers and so forth, the genesis of our curriculum was, "Okay, well, I've hired a junior programmer. What the heck am I looking for when did I do that?" And the truth is that an entry level programmer is kind of useless, right? In other words, they don't come in and just immediately start contributing it as a fully functional member of the team. So if you were hiring a junior programmer, you're doing so as an investment.

Dionissi Aliprantis

You're thinking about the future. You're not thinking about just that moment.

David Wintrich

This person, maybe a year from now, I'm going to be able to groom them into a fully contributing member of the team. When I was hiring folks like that, I really just looked for, do you have a sufficient foundation? Do you know enough things that I can have you do something? Give you a task where you

know how to do maybe 80% of it, and then you'll figure out the other 20%? And then we just keep doing that enough times and eventually you learn the stuff that you need to learn.

David Wintrich

So you've got some kind of foundation, you demonstrate that you have the ability to learn, you demonstrate that you've got enough enthusiasm about the field that you've got the motivation to learn all the things that you need to, and that you're a reasonably pleasant human being that I won't mind working with on a day to day basis.

David Wintrich

So what we did then is we said, "Well, okay, of those things, that foundation, those foundational skills are really what need to form the basis of our curriculum." What is it that somebody needs to know to navigate a technical interview process? And then once they're on the job, continue to learn all the other things that they need to learn while they're there?

David Wintrich

Equally important to the curriculum is the teachers that we employ. So we don't necessarily look for folks with a teaching background. Instead, we recruit as our instructors folks with industry background. So on average, our instructors have somewhere around, I think on average, 20 years of experience in industry

we look for folks that have actually got credible technical chops that have worked for the kinds of companies that are hiring our graduates so they can bring that real world perspective into the classroom. But also have a demonstrated track record of mentoring and of developing, say, junior programmers on the job, because somebody's doing that. And I think for our instructors, what they've found in their career is like, "Well, that's actually the thing I find the most rewarding. I love developing other people." And so this is an opportunity for them to take their technical skills and experience and deploy it in a very different way and in a way that they find very rewarding.

David Wintrich

But again, I think that choice to bring practitioners and people with industry experience into the classroom, just again, further reinforces our focus on employable skills.

David Wintrich

The other thing that we do that I think is sort of a differentiator is we also focus on helping students with just general professional development. Interviewing skills, job, search skills, that kind of thing.

Dionissi Aliprantis

can you talk a little bit about some of the outcomes you all have had and some of your students at Tech Elevator have had? And can you tell me maybe how different do you think they would be if you didn't also have that focus on the social, emotional, professional development type support?

David Wintrich

Tech Elevator, we are a member of an organization called the Council on Integrity in Results and Reporting. And I want to mention that at the outset, because this an organization, it's a bunch of coding boot camps that got together and defined a standard for how do you measure graduation rate, and how do you measure employment rate or employment outcomes? And how do you report that?

David Wintrich

And the schools that got together who defined the standard thought it was important because one of the things that some not so good actors in the coding bootcamp space, or honestly, for-profit education in general, have been notorious for is inflating numbers. Saying, "Okay, I mean, everybody's got a hundred percent job placement rate," or whatever the case may be.

David Wintrich

And so for some bootcamps it's like, "Hey, let's actually get on the same page as to what these numbers mean so that a prospective student can compare apples to apples." And so the CIRRR standard, Council on Integrity in Results and Reporting, CIRRR, says that basically you need to account for every single student that goes through your program. And so it's a very simple formula. Your graduation rate is how many students started and how completed the program. Define those two numbers and that's your graduation rate.

David Wintrich

By those standards, Tech Elevator has had right around a 95% graduation rate. And amongst those graduates, we've had right around a 90% job placement rate fields in, or rather jobs in the field of programming and technology.

David Wintrich

We're really proud of that. It's something that every single person that works at Tech Elevator, this is why we're here. This is what we do. But student outcomes are really important. And in terms of, well, how are we able to achieve those kinds of outcomes? Well, I think one is that we do have a fairly rigorous admissions process, where we're able to identify folks that are likely to succeed in the program, to all the stuff I said around the technical education. I think we do a good job with that. And then three is, and I think this has been really important is again, because we, at the outset said, "Our goal is not teaching somebody to code. Our goal is to help somebody to find a job."

Dionissi Aliprantis

Okay, cool. Okay. So I guess then the other questions I have for you, one is, I'm curious about your connections with businesses. What is it about the employers that brings them to you? What are they interested in when they come to speak to you?

David Wintrich

So I guess one, we actually employ folks whose purpose is to go out and beat the bushes and make connections with new employers and tell them about our program and that kind of thing. And when we approach employers, if it's a new employer that isn't familiar with us and we're explaining to them, "Hey, we're coding bootcamp. These are our these are our graduates, these are the things they know," that kind of thing. One of the first questions we'll have in an initial meeting is generally, "Okay, so," they may not ask it directly, but they'll ask it in some way. "So how much does this cost," type of thing? Because they're used to recruiters coming to them and saying, "Well, I want a 20% fee on the dah, dah. And they want to know, it's free. You don't have to pay us anything. We just want to make sure our graduates have got jobs waiting for them at the end. So they're free. Go ahead and take a them."

David Wintrich

And again, we do that deliberately because it's like, "Look, we don't want to put any friction between a graduate and a job." And so it's a pretty easy sell when you're going to an employer who's desperate for technology talent. This is something very valuable to them and you're saying, "Well, here I have some. Take it, it's free." And then I think what has employers come back over and over again, we've had companies that have hired hundreds of our graduates now at this point and had us train hundreds of their employees, is that they just see consistent results. It's that, "Hey, this is a quality source of talent."

Dionissi Aliprantis

This is working. This is doing what I want it to.

David Wintrich

And it's a fairly large source of talent. I mean, we'll graduate a little over a thousand people this year. That's pretty significant, even when you're looking at, for instance, Ohio State, which is the largest public university in the country. I mean, I think their computer science program only graduates, I don't know the number anymore, but call it somewhere between two and 300 grads in a year. So as an actual source of talent, Tech Elevator's fairly significant.

David Wintrich

So I think that's been the value to employers of a program like Tech Elevator is that it's just this constant flow of talent, it's consistent, and we just try and make it as easy as possible. That's what we see our role as is we're just a conduit that tries to reduce the friction between graduates and people who want to give them a job.

Dionissi Aliprantis

I guess to close out, I'd like to give you a freebie and just say, what should I have asked you that I didn't ask you? Is there anything we should have spoken about more or thought about more that I managed to miss?

David Wintrich

The real take away from me of this experience is, if you illuminate opportunities for people, you show them the possibilities, give them opportunity to explore and figure out what their niche is, give them the means to acquire valuable skills and then just remove any unproductive barriers in their way, they're going to do great. And again, it's such a virtuous cycle. It benefits those individuals and their families. It benefits companies in being able to find the kind of talent they need. And ultimately, that benefits everybody.

Dionissi Aliprantis

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