

Miriam Farnbauer and Diana Elliott

► The impact of the COVID-19 pandemic on VET in the U.S.

In spite of the crises, apprenticeship models continue to develop, especially in the sector of information technology and communication. Cooperation between employers and community colleges remains a challenge for small and medium-sized businesses. Apprentices also need tutoring and coaching in person in order to encourage and increase the finishing figures of the apprenticeship programmes. Miriam Farnbauer and Dr. Diana Elliott reflect with GOVET team spokesperson, Dr. Hannelore Kress on these and other aspects in an interview.

The Urban Institute is based in Washington DC, USA. It employs a staff of more than 550, including social scientists, economists, communicators, mathematicians, demographers, and data scientists. For 50 years, the Institute has been developing evidence-based insights on socioeconomic fields and has published policy and strategic papers.

One focus is also the monitoring and implementation of different apprenticeship models. In their understanding “Rigorous apprenticeships” – the ones that combine structured work-based training, jobs with wages and contributions to production, and related classroom instruction – cost-effectively prepare workers for rewarding careers and upgrading jobs. With funding from the U.S. Department of Labor’s Office of Apprenticeship, the Urban Institute is building national frameworks for registered apprenticeships in a wide array of occupations. The frameworks are consensus based, meaning they are drafted in cooperation with employers, educators, and other workforce and training experts. The goal is to broaden the country’s number and scope of registered apprenticeships. The DIAG USA Foundation is a training provider and intermediary. The organisation joined the new Interagency Advisory Committee on Apprenticeship and its sub-committees to provide guidance based on the successful German Dual Education System.

Employers and others can use the frameworks to fast-track the development of their own registered apprenticeships, with assurance that they are well researched and consistent across national programmes. The frameworks are competency based rather than time based, meaning that “abilities” are emphasized over memorized knowledge and skills and are more important than the number of hours spent working on tasks. The fields are already

developed include mechatronics, electrical infrastructure and maintenance, insurance, registered nurses, cooks, database tech/cloud administrators, generalists in IT, and a broad field in transportation services and maintenance.

GOVET team spokesperson, Dr. Hannelore Kress, spoke with Miriam Farnbauer, Project Director of the California based DIAG USA Foundation¹ and Dr. Diana Elliott, a principal research associate in the Center on Labor, Human Services, and Population at the Urban Institute.

Dr. Hannelore Kress (GOVET): How is COVID-19 affecting educational systems and Vocational Education in the USA?

Miriam Farnbauer (DIAG USA Foundation): In general, the COVID-19 pandemic's effect on the national economy resulted in a twelve percent decline in the number of new apprentices in the fiscal year 2020 compared to the fiscal year 2019. However, even though there is a decline, it is to mention that the numbers of 2020 are the third highest ever for registered apprenticeship programmes. Therefore, even though there was a decline, at least for the State of California, we had a rise in active programmes. And that shows to me that we might not have hired as many apprentices as before, but employers, educational institutions, and intermediaries are very interested in building these programmes because everyone sees their benefits. In fact, we had a rise of eight percent of new active programmes from 2019 to 2020. I find that very remarkable given that we had an economic downturn.

Dr. Diana Elliott (Center on Labor, Human Services, and Population at the Urban Institute): Apprenticeships in the U.S. are a very small component of the labour force. They are a quarter of a percentage point to maybe a third. Most of our apprenticeships here in the U.S. are still in the fields of construction and the trades. An uptake of programmes outside these areas is still very rare. Nevertheless, there has been a steady rise over time. What I have observed as well, and this is anecdotal, with the programmes I work in, is that because this pandemic was really about a transition to virtual environments, tech apprenticeships did not necessarily slow down as much as other areas. There was actually an increased need we were hearing from clients in cyber security because so much moved to that sphere. There was a rise in tech apprenticeships and a decline in manufacturing, like the traditional trade apprenticeships. A lot of manufacturing slowed down because of the impersonal nature of work, but a lot of the tech employers, the IT employers we work with, were able to transition to 100 percent virtual. We still had some tech employers who had higher increases in apprentices, and this was sort of a company-wide decision.

Miriam Farnbauer: Regarding the best practices, when it comes to IT, it was a fairly easy transition. Our employers returned to digital formats like webinars, e-learning, and other

1 See www.diagusa.org (Retrieved on 07.12.2021).

video conferencing tools. However, if I talk to either the supervisors or even the CEOs who hire these apprentices, they say, “we cannot keep it that way only.” Because soft skills are something that is never really been taught over a digital format, and it is a hands-on component which is so important to the apprenticeships, and that rather gets lost. If we look at software developers, they can do their task on their laptops at home. Nevertheless, it is as good, or necessary, to have this one-on-one component in between. I do not think they will fully go back to in-company training, but they will try not to only be digital. Now when we talk about a maintenance technician, for example – a different sector where there was a decline in the number of apprentices – they had a hard time adjusting. In one of our programmes, we gave students those virtual reality glasses and they were able to see what the technician, the instructor, who was at the college by himself, was doing below the car’s hood. Like this, we tried to make it as hands-on as possible. When I talk to our apprentices, they tell me it is great what we can do with technology but if they do not touch the tools and cars, it is just not the same. And let’s keep in mind that to stay focused for like four hours straight on a screen is really difficult. We divided our cohorts, mostly up to ten people or less and then had them rotate. One day cohort one is at home and looks through the virtual reality glasses, and then the second day they go into the classroom or to the employer.

Dr. Diana Elliott: I see too, that at least in the U.S., people who are drawn to apprenticeships are hands-on learners. So this virtual environment did pose a real challenge. Now again, in IT that is a bit easier because people are coding, often in teams, which can be done virtually. But regarding Miriam’s point, when you need to have your hands on something, it becomes much more of a challenge. In addition, some of the things that we heard from some of the intermediaries that we work with was that mentoring and coaching became a challenge. Again, that built up to what Miriam was saying, you could not just mentor and coach online. There needed to be some in-person component. And a lot of that includes simply building up personal connection, keeping the apprentice feeling like there is somebody who is helping them, who is there with them. Because we have many people who start apprenticeships in the U.S., but we do not have as many completers. Mentoring and coaching are really important to keep them engaged. About 221,000 people have entered registered apprenticeships in the financial year 2020. There were overall 636,000 students across all programmes, not just people who started. Only 82,000 graduated from programmes in the financial year 2020. That is a big difference considering that most of our apprenticeships are fairly short. They are one to three years long. With the trades maybe being a little bit longer. But yes, there is a high dropout rate. There is a really big focus on starts of apprenticeships and not as much of a focus on completion and successful completion. And it is something that some of us, who think and work on this, have been worrying about. But again, because the U.S. system is just so focused on boosting those numbers, we have not been able to really think about what does it take to have a high quality, successful programme where people complete.

One of the challenges during COVID-19 is that people had childcare issues, and may have had transportation issues. If their family was running into financial difficulties, the apprentice cannot necessarily pay very much at the start. Therefore, I think there were many pandemic considerations that were operating as well in the background. Now that said, we work with some intermediaries that work hard to keep the apprentices in the programmes, but I do not know if that is everyone. Once employers realise what an important solution it is for their workforce issues, they basically stick with it. Nevertheless, it is getting over that hurdle of getting them to try it that is the challenge. Now that said, they are not always willing to invest in it in the ways that they should. We work with intermediaries, and they are constantly trying to find money to offset the training, or the childcare, or ways to support the apprentices. It still is surprising to me that the employers are not willing to invest more training dollars in doing that. They want essentially people trained for free. They want to put very little money into it. However, a few employers are willing to invest in it. We work with Google, Microsoft, and Cognizant, who are these big named organisations and who understand. You know, their apprentices are a small fraction of their workforce, but they understand that they need to spend some money training them; they need to spend money on mentoring them. But it is harder for small and mid-level organisations to kind of understand that.

Dr. Hannelore Kress: When you say intermediaries, are these training providers or colleges? Who is the intermediary?

Dr. Diana Elliott: Sometimes they are organisations like DIAG, who are working to help employers getting started, help employers figure out how to register or how to move forward with the programme. Other times, they are training providers, so they seek to make some money from the training they offer. They are not necessarily community colleges. We have worked very rarely with community colleges; they do not always see the value of starting an apprenticeship programme. It is often this real barrier in the U.S. to getting community colleges to see that their purpose can be getting a student into a successful occupation and career, rather than just educating them for a degree.

Dr. Hannelore Kress: And when you reflect on the dynamics of the pandemic's effects on the U.S. educational system starting from March 2020 up until now, what effects do you see?

Dr. Diana Elliott: Well, there was a lot of drop-off in students, not just in apprenticeships, but students overall. And community colleges are often the first to feel those effects because their students have lower income; they are often first-generation students. Therefore, I wish that were a motivation for community colleges to get more interested in doing apprenticeships because their students often need to work at the same time that they are in school. It would be a real asset to everyone to have them engaged in work while they are in school. But it has been frustrating, honestly, having conversations with community colleges. Some of them are

terrific and they really understand it, but others do not understand that they need to be talking to employers or they need to be helping their students get into a job and a career.

Miriam Farnbauer: What the government did was to issue USD 3.8 billion in grant funding for expanding apprenticeships over the next five years. That is not referring to general student numbers, but this is something where I am thinking the government tries to help colleges, intermediaries, and employers to get started again or to continue working on this and expand programmes, and help with transportation money and childcare money. That was the National Apprentice Act of 2020. And that is double of the current grant funding. There is a lot of money that is being invested from the government to get those programmes expanded.

Dr. Diana Elliott: About half of the states in the U.S. are part of the national system. The other half, each of them, has their own state systems and do not participate in the national system. There are states that really do a great job. South Carolina has had a reputation for a decade or more of being very good at this. They have this initiative called “Apprenticeship Carolina”, they know how to talk to employers, they have community colleges and technical schools who are really engaged in this and are doing a terrific job. California had set a high bar for the number of apprenticeships that they are going to achieve in the next ten years. That came all the way from the top, from the governor.

Miriam Farnbauer: Yes. We even had during COVID-19 a rise of 20 percent of apprentices, right now we have 96,000, and the goal is 500,000 by 2029. It is quite a goal, but the governor initiated this Interagency Advisory Committee on new Apprenticeships (IACA). This committee works on solutions on how we can expand apprenticeships and how the government can help schools and employers alike. For example, we create minimum industry training criteria so that companies have something to orient themselves on. So yes, California is definitely one of the states that really wants to expand the apprenticeships.

Dr. Hannelore Kress: Diana, you mentioned the vulnerable groups that were affected by COVID-19, do you see others? Do you see any effect on educators as well, and trainers?

Dr. Diana Elliott: Yes, I think the vulnerable groups are the groups that are always vulnerable in the U.S. They and their communities were the ones who were the hardest hit. People of Colour, higher poverty areas. I think one of the other dynamics that we confront here in the U.S. is the rural and urban divide. We have many people living in rural areas who do not have training or employment opportunities nearby. Actually, having a switch to virtual formats has been advantageous in some regards. Similarly, people with disabilities; they might have trouble with getting to a workplace, depending on the nature of their disability. Or people who are neuroatypical may have problems with working in an office environment, and having a switch to more virtual opportunities, at least in IT, has been helpful. Some people do not necessarily want to swing back to all in person. I think the hybrid approach is what many

people see as being the future. I think for connecting at least those groups who typically have not had as many opportunities, it has been really advantageous.

Dr. Hannelore Kress: That is a very interesting point. Are there plans to roll that experience out to others, so more people also see these advantages? Especially, you mentioned the rural–urban divide.

Dr. Diana Elliott: Yes. At least in the Department of Labour, they have been thinking more about what can we do to better connect these communities to the training opportunities. Even before the pandemic, they were trying to think about what virtual environments or virtual learning we could implement to make sure that we connect rural populations. One of the challenges with rural populations is that if you do not have a job, you do not necessarily have money to buy a car, which you need to get to the training opportunity. One youth programme in Indiana that I have had conversations with, the first thing that they have there, they figure out school bus transportation, and it is sort of a complicated network to get students to their opportunities. As soon as students have enough money, they help them buy a car. It is just so important in the U.S., in those rural communities, for people to be able to have transportation. And our public transportation system is just not there.

Dr. Hannelore Kress: And we found in many countries that in regard to teachers and trainers, also in Germany, their media or ICT competences were not sufficient to implement instantaneously didactic innovation with a pandemic hitting the system unpredictably.

Dr. Diana Elliott: One of the things that we hear in our conversations is that the training provided, for example, at community colleges is not cutting edge. I think, Miriam, we had this conversation in terms of mechatronics. There has to be a lot of training for the trainers in these different facilities. I certainly hear that in IT, much of what is taught in the classrooms is actually out of date. I work with people who have several training organisations whose instructors are people working by day and teaching in their off hours and who are basically able to teach the apprentices the cutting-edge information that they need. In this way, the apprentices are often coming out with better experiences than people coming out with degrees from community or even four-year computer sciences programmes.

Miriam Farnbauer: Which goes back to the perception that has to shift. It has to be communicated that there is this big divide between an outdated curriculum and the “you have to go to college” thinking.

Dr. Diana Elliott: That is exactly right. We hear this a lot; employers and their HR departments and IT are still focused on hiring people with computer sciences degrees when in fact what we have heard from people who have apprenticeship programmes is that those four-year computer science degrees still need to spend the first six months learning what to do

in the actual workplace. I think more and more people in IT are starting to have their eyes open to the fact that you can teach this on the job and not necessarily need somebody with a four-year degree.

I will say the other best practices/lessons learned is that we still need a way to better assess quality of programmes in this country. We do not necessarily measure quality, nor do we insist on quality or a standard of quality across programmes. You can have some apprentices going through one programme and not necessarily being trained as well as a competing programme in the same city even. And the focus in the U.S. at the Department of Labour has been on increasing the numbers of apprentices, which I think is the right phase to be in. You need to make it more of a presence in the United States, but we are going to start transitioning to the point where we need to start thinking about quality, too.

One of our intermediaries is working with IBM. They are training mainframe technicians.² Everyone thinks that mainframes do not exist anymore, that they are those large computer rooms of the 60s, but many of our financial transactions still run on mainframes at banks. Also the government systems. Some of the unemployment insurance hiccups that we had here in the U.S. were because States did not have people to accommodate the mainframes when they had all of these requests for it. They have seen that nobody is teaching these qualifications in the colleges anymore. Their apprenticeship programme has really taken off in the last couple of years. They have all these terrific success stories of people who were laid off during the pandemic. There was the story of one person who was working at a sandwich chain here in the U.S., who had all of the capabilities to do this work but was stuck in this job and later got laid off in the pandemic. The person found this apprenticeship programme and is now making double what he was making before in less than a year's time. So I think the pandemic also presented a lot of opportunities to kind of expand some of this work as well.

References

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2 A mainframe is the central data repository, or hub, in a corporation's data processing center, linked to users through less powerful devices such as workstations or terminals. The presence of a mainframe often implies a centralized form of computing as opposed to a distributed form of computing. Centralizing the data in a single mainframe repository saves customers from having to manage updates to more than one copy of their business data, which increases the likelihood that the data is current. See <http://www.ibm.com> (Retrieved on 07.12.2021).

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