

CENTRE FOR
VOCATIONAL
EDUCATION
RESEARCH



What future for apprenticeships after coronavirus?

Guglielmo Ventura

Briefing Note 012

July 2020

The Centre for Vocational Education Research (CVER) is an independent research centre funded by the UK Department for Education. CVER brings together four partners: the LSE Centre for Economic Performance; University of Sheffield; National Institute of Economic and Social Research and London Economics.

Any views expressed are those of the authors, and do not represent the views of DfE. For more details on the Centre, go to cver.lse.ac.uk.

Published by:
Centre for Vocational Educational Research
London School of Economics & Political Science
Houghton Street
London WC2A 2AE

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission in writing of the publisher nor be issued to the public or circulated in any form other than that in which it is published.

Requests for permission to reproduce any article or part of the Working Paper should be sent to the editor at the above address.

© G. Ventura, July 2020



What future for apprenticeships after coronavirus?

Guglielmo Ventura.

*Centre for Vocational Education and Centre for Economic Performance,
London School of Economics*

1. Introduction

The Covid-19 pandemic outbreak and the ensuing economic uncertainty caused interruptions to apprenticeship training. This is putting the future of apprenticeships at risk just at the time when they will be most needed to protect employment and sustain the recovery. Apprenticeships offer a mix of training on the job and additional off-the-job training. This is generally a successful combination, but it has made apprenticeships particularly vulnerable during the current crisis. The purpose of this short briefing note is to present and discuss available evidence on the impact of the Covid-19 crisis on present and future apprenticeship provision as well as to set out a framework for policy interventions. Section 2 starts by laying out available evidence on disruption of pre-existing apprenticeships: a survey of firms employing apprentices in April 2020 (Sutton Trust, 2020) reveals that, on average, only 40% of apprenticeships continued as normal with the rest facing learning disruptions or being furloughed or made redundant. Training providers also reported to be under great financial strain. This raises the fear that even as the crisis subsides, there will be fewer apprenticeships on offer and fewer providers to deliver them. Evidence shows that this is already the case with much fewer apprenticeship vacancies and starts recorded in the months of April and May. Section 3 shifts the focus to the longer-term impact and its labour market implications: I present evidence from the past suggesting that apprenticeships fall during economic downturns, particularly among young people. This is confirmed by survey data looking at firms' apprenticeships hiring intentions pointing to a possible reduction in new apprentices. Worryingly, this would be at a time when the need for apprenticeships may be most pressing: economic predictions point towards large swathes of jobs at risk as a result of the Covid-19 outbreak. Workers employed in higher-risk sectors (such as retail, hospitality and construction) tend to be younger and have lower education and skills: for many of these workers, retraining via apprenticeships may be an effective route back into stable employment. If the market does not provide as many apprenticeships as needed, the government should intervene. But how? Section 4 draws on economic theory and empirical evidence to set out a simple framework for

policy interventions. It also stresses the challenges in making any accurate policy predictions given the substantial knowledge gap that needs to be filled. Finally, section 5 concludes.

2. Impact on current apprenticeships

In recent years, there has been much emphasis and public support for apprenticeships as a route for young people into the labour market and as a way for firms to invest in the skills of their workforce. Apprentices are employed by a firm and spend about 80% of their time working with the remaining time devoted to off-the-job training delivered by an independent training provider or a further education college. This combination of workplace training and education is generally considered to be behind the labour market success of apprentices. In England, this is corroborated by recent evidence showing that young apprentices reap higher earnings in their early years in the labour market than other vocational students qualified at the same level (Cavaglia et al, 2020).

At the same time, economic disruption brought on by the Covid-19 pandemic made the vulnerabilities of this system plain. For a start, the on-the-job training component of an apprenticeship is inherently linked to economic activity: in many sectors of the economy, either as a result of enforced social distancing or due to fall in demand for goods and services, economic activity was reduced to a standstill or significantly scaled down. As a consequence, many apprentices have been furloughed or made redundant, causing a temporary or permanent interruption in their apprenticeships. In addition, apprentices' participation in off-the-job learning has also been disrupted.

Unfortunately, official statistics on apprenticeship interruptions are not available, which makes it impossible, at this stage, to draw a complete picture of the impact of Covid-19 on current apprenticeships. A survey of firms employing apprentices commissioned by the Sutton Trust helps to cast some light on firms' response to the crisis by early April (Sutton Trust, 2020). Figures in the survey should be interpreted with caution as it only includes 150 respondents and was administered to human resources staff, possibly making smaller firms less represented. The survey finds that, on average, only 40% of apprenticeships were continuing as normal; 36% of apprentices employed by the respondents were furloughed; and 8% were made redundant. While the survey does not report the equivalent figures among the non-apprentice workforce, we can draw a cautious comparison by looking at wave 3 of the Office

for National Statistics (ONS) Business impact of Covid-19 Survey¹: in roughly the same period, firms surveyed by the ONS reported that they have furloughed around 28% of their workforce with less than 1% made redundant. This gives an initial indication that apprentices were more likely to be furloughed or made redundant than the average worker. This is because apprentices (especially if recently hired) may lack the skills and experience to be temporarily redeployed in different roles: this is partly borne out by the Sutton Trust survey where 29% of employers (potentially up to one in two of those who had to furlough apprentices) claimed that their apprentices could not be moved to other desirable roles because of lack of skills.

Lack of work has been compounded by problems in accessing off-the-job learning: 40% of respondents in the Sutton Trust survey reported that their apprentices could not continue learning as a result of the training provider closing or interrupting provision. This stands partly in contrast with evidence collected by the Association of Employment and Learning Providers (AELP) whose survey of 150 training providers on 9 April² reveals that 81% of their apprentices were still in active learning thanks to learning switching to online provision. Most providers whose apprentices took a break in learning or leave the apprenticeship (19%) have seen their payments from the government suspended.

The fall in revenue for providers was exacerbated by the reported fall in new apprenticeships starts: a more recent survey of 80 providers by AELP³ finds that about 60% of employers with which they normally work had stopped all new apprenticeship starts since the outbreak of the pandemic. This is backed by preliminary government statistics⁴ reporting that apprenticeship starts from the beginning of the lockdown (March 23rd) to end of April were down 51% compared to the same period in 2019. Data on apprenticeship vacancies posted by firms on the Find An Apprenticeship website⁵ (which captures a subset of apprenticeship

¹ Business Impact of COVID-19 Survey (BICS) results. BICS Wave 3: 6 April to 19 April 2020. Link: <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessimpactofcovid19surveybicsresults>

² Link to survey results: <https://www.aelp.org.uk/news/news/press-releases/training-providers-working-miracles-to-preserve-apprenticeships-and-other-skills-programmes-but-living-on-borrowed-time-latest-aelp-covid-19-impact-survey-shows/>

³ Link to survey results: <https://www.aelp.org.uk/news/news/press-releases/apprenticeship-starts-falling-off-a-cliff/>

⁴ Apprenticeships and traineeships: main text- May 2020 update. Link: <https://www.gov.uk/government/statistics/apprenticeships-and-traineeships-may-2020>

⁵ Apprenticeships and traineeships: main text- June 2020 update. Link: <https://www.gov.uk/government/statistics/apprenticeships-and-traineeships-june-2020>

vacancies) reported 2,020 and 1,850 vacancies in April and May, in the same months in 2019 there were 10,400 and 12,580 respectively. Many providers reported they would scale down their activities accordingly, with some voicing concerns that they may go out of business.

Overall, available evidence is not conclusive and only the publication of complete official statistics will reveal the actual impact on apprenticeship provisions. Yet some indications are clear and worrying: a significant amount of apprentices are out of work after being furloughed or made redundant, a higher proportion than among other workers. What will happen to these apprentices? While many apprenticeships can resume and be completed once economic activity recovers, in some sectors, protracted social distancing or a slower recovery put apprentices at risk of losing their jobs and becoming unemployed unless they are transferred to a new employer. Finding employers willing to take up apprentices may prove hard though.

3. Impact on future apprenticeship provision and implications

The availability of future apprenticeships will crucially depend on firms' willingness to hire and train new apprentices. Economists tend to think of firms' decisions to take up new apprentices both in terms of current production needs and as an investment in future skilled labour. Reduced economic activity is discouraging firms from hiring new apprentices and so will uncertainty about the length of the crisis.

Economic research confirms that apprenticeship training is generally pro-cyclical (Brunello, 2009), with provision going up when the economy does well and falling during economic downturns. Muehlemann et al. (2020) find a positive association between firms' expectations about the business cycle and apprenticeship provision in Germany: their estimates point to a potential 7% reduction in apprenticeship contracts between the second quarter of 2020 and 2019.

For the UK, we can draw some more recent lessons by looking to what happened to apprenticeships during the Great Recession of 2008/09. Figure 1 plots the number of apprenticeship starts in England officially recorded by the government between the academic

years 2002/03 and 2016/17. Apprenticeship starts are reported by age group and we can see that the number of new apprenticeships among under 25 year olds experienced a small year-on-year contraction in 2009 before growing again in 2010 whereas for over-25 (who are predominantly existing employees), apprenticeships actually increased.

More direct indications come from the Sutton Trust survey of 150 firms' future hiring intentions (Sutton Trust, 2020) : when asked how many apprentices they intend to hire in the year after the Covid-19 pandemic, one in three firms say that they will offer fewer or no apprenticeships with 20% saying they will offer more.

Overall, this seems to suggest that, even as the Covid-19 outbreak subsides, firms are likely to reduce their apprenticeship provision. Without any additional policy intervention, it is quite likely that in the course of at least the next year, fewer apprenticeships will be available, particularly for young people. This is bad news, as it will come at a time when apprenticeships will be particularly needed to retrain workers who lose their jobs.

While any attempt to predict the impact of the Covid-19 crisis on future employment should be considered with circumspection, in some sectors, many jobs are undoubtedly at high risk of being lost, especially if the government eventually reduces or withdraws its direct financial support. Forecasts by McKinsey⁶ indicate that jobs at higher risks of being lost are concentrated in sectors such as Wholesale and Retail, Hospitality and Construction, which are the sectors with the highest proportion of furloughed workers in April, according to the ONS business survey . The McKinsey analysis also emphasises that workers employed in jobs more at risk tend to be younger, have a lower pay and, crucially, a lower level of education. These workers are particularly vulnerable and unless they are offered access to education and training opportunities, they risk being excluded from the labour market for long stretches of time thus bearing the negative 'scarring' effects documented among the long-term unemployed (Machin and Manning, 2000)

This is why in the coming weeks and months, the government should focus on crafting a comprehensive education and training strategy: an increase in apprenticeship provision will

⁶ COVID-19 in the United Kingdom: Assessing jobs at risk and the impact on people and places. Link: <https://www.mckinsey.com/industries/public-sector/our-insights/covid-19-in-the-united-kingdom-assessing-jobs-at-risk-and-the-impact-on-people-and-places>

be desirable as, in many sectors, apprenticeships proved to be significantly more beneficial in the labour market than other types of vocational education (especially among young people). To get private firms on board the right incentives will be needed.

4. How to increase apprenticeship provision: a cost-benefits framework

Generally, firms hire and train apprentices if the associated cost-benefits ratio is more favourable than the one of hiring skilled workers (Muehlemann and Wolter, 2014). Costs associated to apprenticeships include apprentices' wages and direct or indirect costs of training apprentices whereas the immediate benefit is that apprentices may perform skilled labour at a lower wage cost for the firm. If immediate benefits outstrip costs firms are better off hiring apprentices; if firms incur a net-cost during the apprenticeship period they may still recoup their initial investment by retaining apprentices as skilled labour longer after that (while also saving on recruitment costs of new skilled workers).

Available evidence on cost and benefits of apprenticeships mainly comes from firm-level surveys from German-speaking countries in Europe (ibid.). In Germany, despite 70 to 88% of firms incurring net costs when training apprentices (Beicht et al. 2004, Schoenfeld et al. 2010), firms are willing to offer apprenticeships because of the benefits arising after the training period: this is partly the result of labour market rigidities that facilitate apprentices' retention in the firm. In Switzerland, which is more similar to the UK insofar as it has a more mobile workforce, apprentices are much more likely to leave the firm at the end of the apprenticeship period. In this economic context firms are still willing to hire apprentices thanks to lower net-costs: Strupler and Wolter (2012) show that 71% of Swiss firms surveyed reported no apprenticeships net-costs during the training period.

In England, evidence on apprenticeships' cost and benefits is quite limited and mainly comes from a series of case studies (Gambin et al. 2010, Hogarth et al. 2012) and a simulation based on extrapolating Swiss data into the English setting (Wolter and Joho, 2018). The case studies document positive net costs in all sectors considered, with apprenticeships in Engineering and Construction generating the highest net costs for the firm. Encouragingly, firms in the study are estimated to recoup their apprenticeship investment in a relatively short payback period (maximum 3 years). These results are only indicative as the samples considered are small and unrepresentative. The simulation analysis, which combines Swiss data on

apprentices productivity across occupations and English wage costs, gives a more nuanced picture with some occupations showing net-benefits by the end of the training period. For most occupations positive net-costs are offset by savings on hiring costs if the apprentices are retained in the firms. Overall, better data will be needed to fully understand how firms decide to invest or not in apprenticeships. In the meanwhile, any attempt at increasing firms' involvement is likely to rely on financial subsidies to firms, this may require tweaking the current funding system.

In April 2017, the government introduced a 0.5% levy on firms' wage bills in excess of £3M; firms who pay the levy can use these funds (plus a government top-up of 10%) to pay towards apprenticeship training. Smaller firms that don't pay the levy can also access public funds but need to contribute 5% towards the training cost (co-investment). These funds can be exclusively used to pay training providers for the delivery of off-the-job training and assessment of apprentices. While small additional payments are available to firms employing 16-18 year old apprentices, firms normally bear the full cost of employing an apprentice. In particular, they are responsible for paying apprentices' wages, including for the 20% of the time spent on off-the-job training. Apprentices who are less than 19 or are in their first year of training, are entitled to be paid the apprentices minimum wage of £4.14 (corresponding to 91%, 64% and 50% of the under 18, 18-20 and 21-24 minimum wages respectively). To cut apprenticeship costs for firms, the government options may range from abolishing co-investment for non-levy-paying firms to introduce some form of wage subsidy (e.g compensating firms for the off-the-job training component of apprenticeships)⁷. While all these measures give incentives for firms to take on apprentices thereby increasing the number of apprenticeships available, it is hard to predict how large any change would be and whether a sufficient amount of apprenticeships will be provided. Much depends on how the incentives affect the broader cost-benefit analysis of taking on apprenticeships at the firm level and the extent to which uncertainty about the future comes into play.

These issues need to be better understood if we are to build a large-scale, financially sustainable apprenticeship system that increases workers' productivity and shields them from

⁷ On July 8th, the Chancellor of the Exchequer announced the introduction of an additional £2000 payment to firms hiring under 25 apprentices and £1500 for over 25 apprentices. Previously firms received a £1000 payment for hiring 16-18 year old apprentices or under 25 in Education, Health and Care.

adverse labour market shocks. Economists and policy experts should set their minds on this task. The availability of firm-level data of the type and scale available in Germany or Switzerland is imperative to understand why firms decide to provide apprenticeships and how they benefit from them. Field experiments within the context of pilot schemes should also be considered as they enable one to test how changes in incentives or information availability affect apprenticeship provision by firms. Better understanding of this would contribute to more effective policies in the future.

5. Conclusion

This briefing note gathered available evidence to quantify the disruption to apprenticeship provision brought by the Covid-19 outbreak in England. As the country emerges from the most severe phase of the pandemic and economic activity gains pace, many jobs and apprenticeships will resume. Public health concerns and consumers' wariness, however, are expected to weigh on the recovery. Despite a robust government intervention, many jobs are anticipated to be lost in some sectors and there is some early indication that apprentices may be more likely to go first. This poses an immediate challenge as many apprentices will need to be matched to new firms. Looking ahead, there has been much talk of an expansion of apprenticeships to offer a route into employment for young school-leavers and the unemployed. Unfortunately, this briefing note presented evidence from the past suggesting that apprenticeship provision tends to fall during economic downturns, resulting in underinvestment in skills: some indicators confirm this is being the case now. There is clearly a case for government intervention. The Treasury's latest announcement included new payments to firms hiring apprentices. Whether this has an effect on hiring depends on how it affects the firms' cost-benefit decision (as discussed above). It also depends on how apprenticeship incentives interact with other schemes also announced (such as the 'kickstart scheme' which offers fully subsidised 6 month placements for 16-24 year olds deemed to be at risk of long-term unemployment). The lack of relevant and representative data (particularly of matched employer-employee data) means that, as economists, we currently know too little about how English firms choose to invest into apprenticeships which makes it hard to predict whether apprenticeship incentive payments are likely to generate a sufficient amount of new apprenticeship positions. Cavaglia et al. (2019) suggest that even in more prosperous times, one-off incentive payments are likely to have a somewhat limited effect.

References

Beicht, U., Walden, G., Herget, H. and für Berufsbildung, B., 2004. Kosten und Nutzen der betrieblichen Berufsausbildung in Deutschland. Bertelsmann.

Brunello, G., 2009. The effect of economic downturns on apprenticeships and initial workplace training: a review of the evidence.

Cavaglia, C., McNally, S. and Overman, H., 2019. Devolving Skills: The case of the Apprenticeship Grant for Employers.

Cavaglia, C., McNally, S. and Ventura, G., 2020. Do Apprenticeships Pay? Evidence for England. *Oxf Bull Econ Stat*. doi:10.1111/obes.12363

Gambin, L., Hasluck, C. and Hogarth, T., 2010. Recouping the costs of apprenticeship training: employer case study evidence from England. *Empirical research in vocational education and training*, 2(2), pp.127-146.

Hogarth, T., Gambin, L., Winterbotham, M., Baldauf, B., Briscoe, G., Gunstone, B., Hasluck, C., Koerbitz, C. and Taylor, C., 2012. Employer investment in apprenticeships and workplace learning: the fifth net benefits of training to employers study. BIS research paper number 67.

Machin, S. and Manning, A., 2000. Long-term unemployment in Europe. *Handbook of Labor*.

Muehleemann, S., Pfeifer, H. and Wittek, B., 2020. The effect of business cycle expectations on the German apprenticeship market: Estimating the impact of Covid-19 (No. 0171). University of Zurich, Department of Business Administration (IBW).

Muehleemann, S. and Wolter, S.C., 2014. Return on investment of apprenticeship systems for enterprises: Evidence from cost-benefit analyses. *IZA Journal of Labor Policy*, 3(1), p.25.

Schönfeld, G., 2010. Kosten und Nutzen der dualen Ausbildung aus Sicht der Betriebe: Ergebnisse der vierten BIBB-Kosten-Nutzen-Erhebung. W. Bertelsmann Verlag.

Sutton Trust, 2020. COVID-19 and Social mobility impact brief #3: Apprenticeships. Link: <https://www.suttontrust.com/our-research/covid-19-impacts-apprenticeships/>

Strupler, M. and Wolter, S.C., 2012. Die duale Lehre: eine Erfolgsgeschichte–auch für die Betriebe. Ergebnisse der dritten Kosten-Nutzen-Erhebung der Lehrlingsausbildung aus der Sicht der Betriebe. Chur: Rügger.

Wolter, S. and Joho, E., 2018. Apprenticeship training in England: a cost-effective model for firms? http://aei.pitt.edu/102694/1/LL_cost_benefit_study_England.pdf

Figures

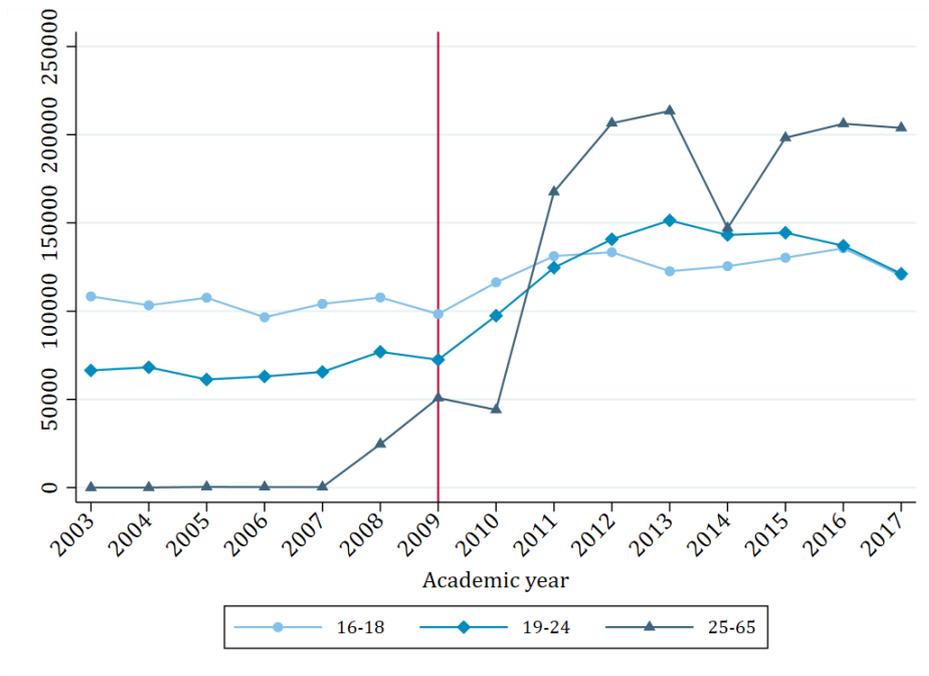


Figure 1: Yearly apprenticeship starts by age group

Notes: The figure reports the number of apprenticeship started in each academic year (August-July) by age group. *Source:* Individualised Learners Records.