

Tobias Maier

► Does the COVID-19 crisis mark a turning point on the apprenticeship market? A forecast of the possible development of new apprenticeship contracts up until 2030

In 2020, in the wake of the COVID-19 crisis, the number of newly concluded apprenticeship contracts decreased by 57,600 compared to the previous year and reached the lowest level recorded since 1975. This article demonstrates that this collapse was only so severe because a surprisingly large amount of young people, particularly those in possession of a higher education entry qualification, had begun company-based training in the three years preceding. From a demographic perspective, the low level of training contracts was predictable. The question arising in future will be whether transition rates among young people stay at the low level of 2020 and what long-term implications this will produce in regard to securing the supply of skilled workers.

Changes on both sides of the training market

In 2020, the COVID-19 crisis led to an economic downturn of around five percent compared to 2019. Business prospects were especially poor in sectors which were more severely affected by the shutdowns, such as events, sport, and tourism, as well as trade and industry. As a result, the supply of training places on 30 September 2020 was around 8.8 percent lower than one year before. The number of newly concluded apprenticeship contracts decreased by eleven percent, an even sharper fall than the decline seen in apprenticeship place supply. The 467,300 newly concluded training contracts represented the lowest figure recorded since 1975 (cf. OEYNHAUSEN et al. 2020).

The dramatic decrease in newly concluded apprenticeship contracts was also caused by a fall in demand for apprenticeship places as institutionally recorded. This effect was discernible as long ago as during the European debt crisis of 2009 and it has two different causes. Firstly, like in 2009, the number of general school leavers was lower in 2020 than in the

previous year. Secondly, some of those keen on entering training withdrew their interest in company-based training (cf. MAIER 2020). Thus, as of 30 September 2020, the supply–demand ratio remained at precisely the same level as the previous year: there were around 96.6 training places for every 100 young persons seeking one.

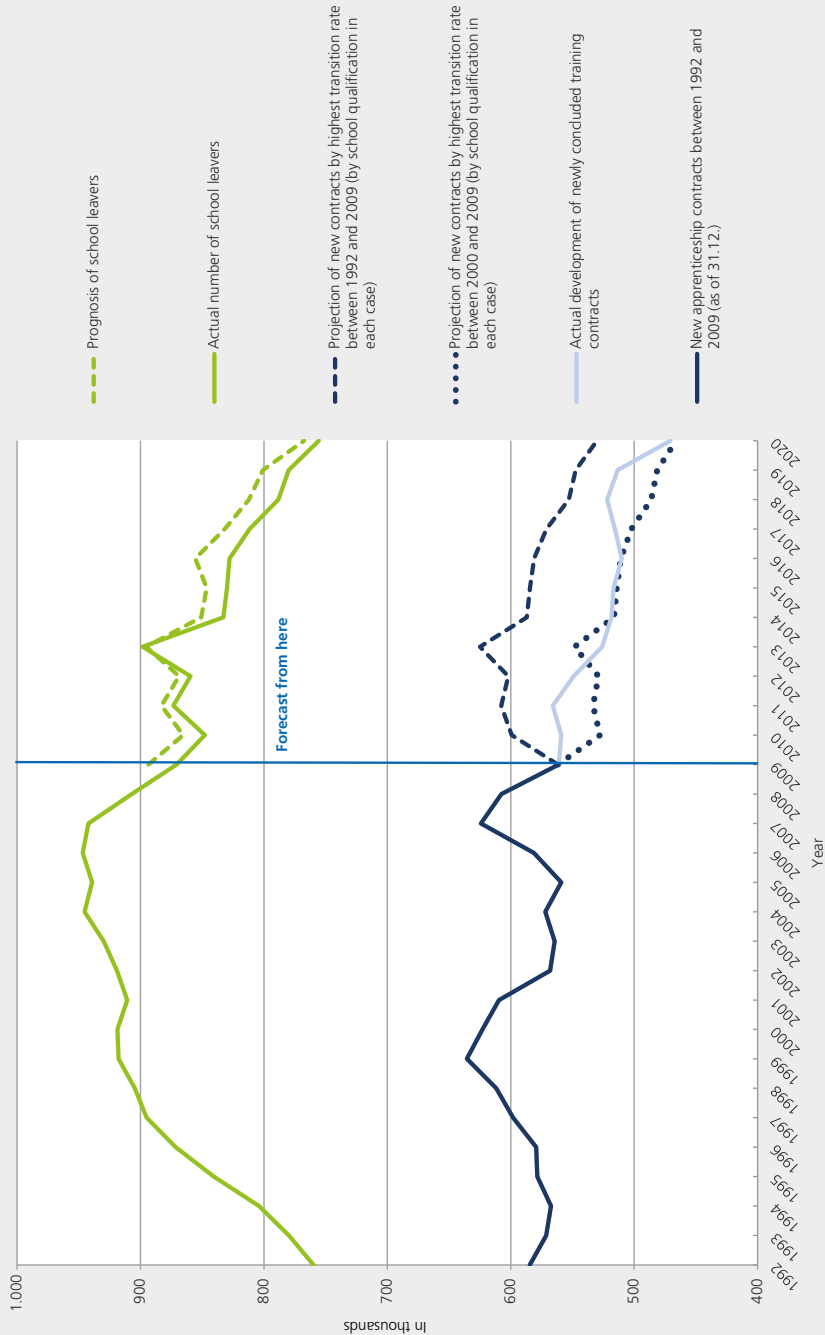
The interest from both sides of the market is a significant factor in signing new apprenticeship contracts. However, the balance of power shifts over the course of time. MAIER/WALDEN (2014), for example, showed that the number of newly concluded contracts in the 1980s could largely be explained in terms of demographic development. In the 1990s, on the other hand, economic factors became increasingly significant. The importance of demographics then began to grow once more towards the end of the 2000s. It became apparent that fewer and fewer young people are leaving general schools, while the supposition would also be that more of these young people possess a higher education entry qualification. MAIER/TROLTSCH/WALDEN (2011), therefore, calculated the number of new contracts which could be generally expected by the year 2020 given the demographic situation. This article compares these projections with the actual situation and draws conclusions for the further development during this decade.

What was the nature of the development in the past?

Figure 1 shows that the number of general school leavers rose continually between 1992 and 2007 but then fell back. The prognoses made by the the Standing Conference of the Ministers of Education and Cultural Affairs (KMK) at the time indicated a further decline in the future, and indeed this decrease subsequently occurred. The short-term increases between 2011 and 2013 are due to the switch from a nine-year upper secondary school system to an eight-year model. This created double cohorts of upper secondary school leavers in various federal states. Whereas the number of newly concluded apprenticeship contracts rose in line with the demographic development until the end of the 1990s, a decline began in the 2000s. The figures began to increase again from 2005 onwards before the financial and European debt crisis put a stop to this.

Contrasting general school leavers by school leaving qualification against apprenticeship entrants by school leaving qualification reveals that opportunities for progression were more favourable in the 1990s than in the 2000s from the young people's perspective. The main determinants of these chances of progression were the economic situation and demographic development (cf. MAIER/WALDEN 2014). In light of the decreasing numbers of school leavers, MAIER/TROLTSCH/WALDEN (2011) essentially focused on the question of whether the utilisation rates of the companies in the 2010s would remain largely constant at the level of the 2000s or whether companies would, as they did in the 1990s, once again offer an opportunity to the young people whose chances of progression tended to be poor. The two scenarios produced by this were forecast from 2009 onwards and have been carried forward for the newly concluded apprenticeship contracts in Figure 1 (dashed or dotted lines). They form a demographic corridor within which the number of newly concluded training contracts could have moved, including with regard to dependency on economic development.

Figure 1: Training participation of school leavers, 1992 to 2020



Source: FEDERAL STATISTICAL OFFICE (2019) and Vocational Education and Training Statistics of the BMBF as of 31 December 2020; own calculations
Newly concluded contracts as of 31 December 2020 have been estimated.

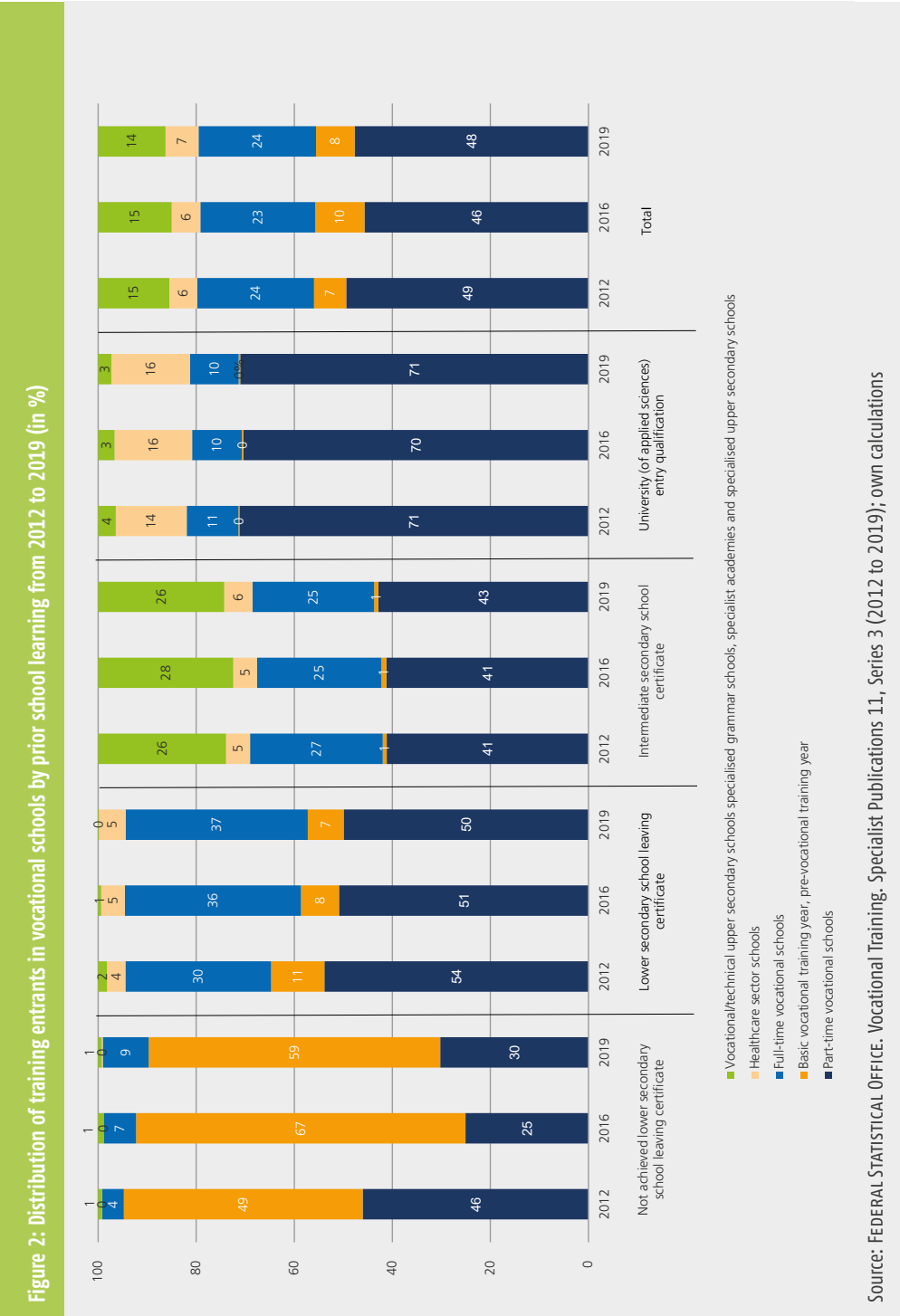
The actual number of new contracts is also represented in Figure 1. It can be seen to lie precisely within the demographic corridor at the start of the 2010s before approaching the lower limit of the corridor between 2013 and 2016. Young people's chances of progression, therefore, did not improve compared to the previous decade. Increased rates of progression were not visible until in the following years, when matching problems on the training market were an object of discussion (e.g. Alliance for Initial and Continuing Training 2015–2018). However, the reason for this was greater transition into dual training by those in possession of a higher education entry qualification rather than improved opportunities for young people with a low level of formal qualifications (cf. KROLL 2020). The number of new contracts did not fall to a level that was expected within the long-term trend for demographic reasons until the COVID-19 crisis occurred.

What conclusions may be drawn from these developments for the training market over the coming decade? In this case too, both sides of the market should be considered. ECKELT et al. (2020) show that the proportion of companies providing training decreased between 2007 and 2018. The authors identify the lack of suitable applicants at the company level as the most significant reason. It may, therefore, be assumed that apprenticeship supply followed the declining apprenticeship demand. Young people's training wishes, which are dependent in their turn on available alternatives, should also have a part to play.

Structural shifts in vocational schools

The specialist publication series on vocational schools produced by the Federal Statistical Office provide information on how training entrants in each cohort differed in terms of type of school and prior school learning between 2012 and 2019. It should be noted that the number of lower secondary school leavers fell from 2012 to 2016 before rising slightly once more thereafter. The number of pupils with an intermediate secondary school leaving certificate has been falling continuously since 2014, whereas an ongoing rise in apprenticeship entrants with a higher education entry qualification began in 2013. This stays approximately in line with the ratio of general school leavers by type of qualification during these periods (cf. FEDERAL STATISTICAL OFFICE 2019).

Figure 2 presents the shift of training entrants by prior school leaving certificate between the sub-sectors of vocational schools. It shows a relative decline in the number of lower secondary school leavers transferring to part-time vocational schools, which are largely attended by persons with an apprenticeship contract concluded pursuant to the BBiG/HwO. By way of contrast, there is an increase in transfers by pupils in possession of the intermediate secondary school leaving certificate.



Transfers to part-time vocational schools by persons with a general higher education entry qualification decline between 2012 and 2016 but then rise continuously. This is similar to the development seen in the case of persons without a lower secondary certificate. An increase may also be observed in transfers to full-time vocational schools by school leavers with weaker formal qualifications (without or with a lower secondary leaving certificate), while a fall occurs in the case of those with a higher level of formal qualifications.

Various evasive movements on the part of the school qualification groups are revealed in 2016, the year in which the lowest level of newly concluded training contracts prior to the COVID-19 crisis was reached (cf. Figure 1). Persons without a lower secondary school certificate were more likely to enter the transitional system (basic vocational training year or pre-vocational training year), while those in possession of an intermediate secondary school certificate preferred specialised grammar schools, specialist academies, and specialised upper secondary schools. It is conspicuous that there is a continuous rise in the proportion of all training entrants with a school leaving qualification who are attending healthcare sector schools.

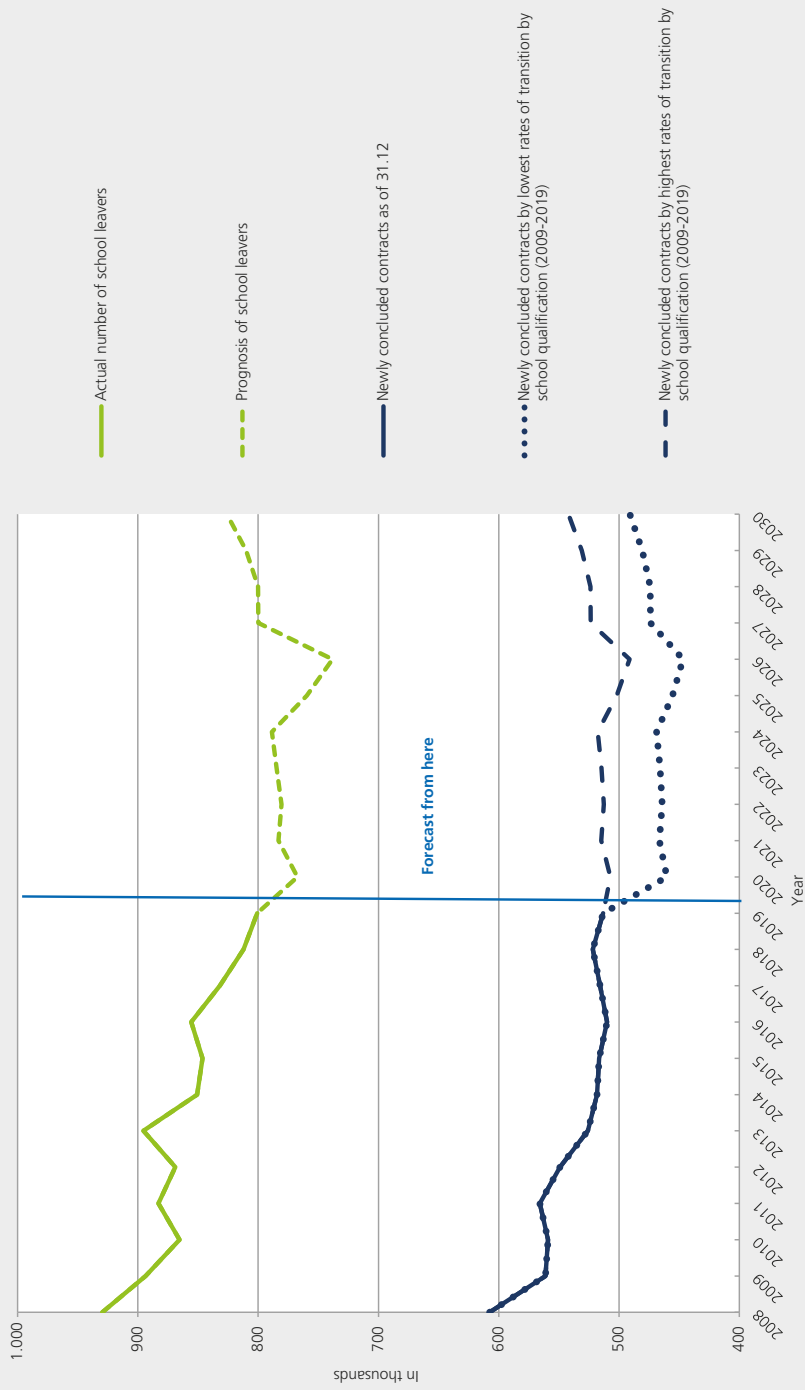
Unfortunately, no entrant figures for vocational schools are as yet available for the year 2020. This means that it is not possible to determine which alternative to company-based training was embraced by the young people. However, if the trend to commence training in the healthcare occupations continues, this may well be a good message in terms of securing a supply of skilled workers in future because training in healthcare occupations matches the high demand for qualified staff in this sector (MAIER et al. 2020).

A long-term outlook

As the previous analyses show, the rates of transition into company-based training by young people with higher qualifications were particularly high between 2017 and 2019. These transition rates reduced again when the training market collapsed during the COVID-19 crisis. In order to illustrate possible developments in company-based training after the crisis, Figure 3 shows a similar calculation made by MAIER/TROLTSCH/WALDEN (2011) in relation to the coming decade. The highest and lowest transition rates into company-based training by type of school qualification for the period from 2009 to 2019 are assumed respectively.

The dashed blue line in Figure 3 states the possible number of newly concluded training contracts if the highest transition rates by type of school qualification between 2009 and 2019 are assumed. The dotted line indicates the number of newly concluded contracts to be expected if the lowest rates of transition are assumed. It is revealed that the number of new contracts reached on 30 September 2020 lies just about within the calculated demographic corridor.

Figure 3: Training participation of school leavers, 2008 to 2030



Source: FEDERAL STATISTICAL OFFICE (2019) and Vocational Education and Training Statistics of the BMBF as of 31 December 2020. CONFERENCE OF THE MINISTERS OF EDUCATION AND CULTURAL AFFAIRS (2020) Forecasts of pupil and school leaver numbers 2019 to 2030 (Documentation No. 224). Own calculations. Newly concluded contracts by persons with foreign school qualifications or where no information was available were assumed to be 10,000 per year. The decreases in numbers of school leavers from 2025 to 2027 are due to the switch from a nine-year upper secondary school system to an eight-year model.

As the downward trend of general school leavers has stopped, the future number of new contracts will once again be less reliant on demographic development and more dependent on opportunities for transition and, as a result, on the participation of companies in training. The range between newly concluded contracts to be expected in accordance with the lowest and highest rates of transition is around 50,000. This figure precisely reflects the variation in demographic development (between 2026 and 2030).

Opportunities for transition are a key factor

The COVID-19 crisis has put an end to the trend towards higher rates of transition, particularly among school leavers with higher formal qualifications, a trend which may possibly have been caused by bottlenecks on the labour and training market. The key factors for company-based training will be whether the enthusiasm of school leavers for dual training can be rekindled during a phase of economic recovery and secondly whether the increasing integration (again) of persons with an intermediate secondary school leaving certificate and of those with a higher education entry qualification does not take place at the expense of persons with or without a lower secondary school leaving certificate. The positive news for companies is that, for demographic reasons, the number of young people interested in training will not fall further. From 2027, it may even be the case that a slightly higher demand can be expected. However, companies will only be able to benefit from this if they maintain their training endeavours until this time. If companies withdraw from company-based training, the stagnating numbers of school leavers will mean that demand for training will exceed supply. This would be a disadvantage for school leavers with lower qualifications in particular and could once again require more extra-company training measures. In terms of policy, it would, therefore, be advisable to support companies providing training, especially small firms, in their commitment or to provide better information on existing support measures, such as assisted training or cooperative training (cf. ECKELT et al. 2020). On the side of companies, vacant training places must be broadly communicated and registered with the Federal Employment Agency to increase the probabilities of placement, even if statistically speaking this will initially lead to a further increase in vacant training places. However, if the number of newly concluded apprenticeship contracts decreases after all, then this should not be taken as an indicator of future shortages of skilled workers. Entrant figures at full-time vocational schools and healthcare sector schools must be accorded equal consideration in this regard.

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