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"Making a Virtue of Necessity": Substitution Potentials in the Face of the Shortage of Skilled Workers - Ways to a Sustainable Future Using the Example of the German Vocational Training System

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Abstract

Context: Germany is particularly affected by an increasing shortage of skilled workers. At the same time, there is a so-called "hidden reserve" of workers whose activation could be very helpful for the German labor market.

Approach: The article shows whether and to what extent reforms of the German vocational training system can contribute to the activation of this "hidden reserve".

Findings: To this end, the article estimates the size of the heterogeneous, untapped workforce potential and brings the different stakeholder groups in connection with concrete vocational training needs and reform proposals.

Key message: To activate the "hidden reserve" for the labour market, a trend reversal of the state further training strategies pursued in the vocational training system in Germany seems urgently necessary. One possible solution would be to offer effective qualification measures that are as targeted and tailor-made as possible for the extremely difficult and heterogeneous target groups considered here.

Keywords

vocational education and training, skilled worker, education and training need, hidden reserve, education and training reform

1 Introduction

"The lack of staff is a challenge for Europe's companies. We must invest much more in training and further education." Ursula von der Leyen, Address before the Members of the European Parliament (September 14, 2022).

Vocational training systems are of central importance for securing skilled workers in Europe and also offer opportunities for participation. Skilled workers not only guarantee the economic performance of companies but are also important for the implementation of overall social



change processes (digitalization/ green transition) (EC 2022; Peichl et al., 2022: 70). Functioning vocational training systems as a source of skilled workers are the basis for technical and socio-cultural development and for a fair and sustainable future. Nevertheless, Germany is particularly affected by an increasing shortage of skilled workers. At the same time, there is a so-called "hidden reserve" of workers whose activation could be very helpful for the German labor market. However, this requires fundamental structural adjustments in the German vocational training system. The article shows whether and to what extent reforms of the German vocational training system can contribute to the activation of this "hidden reserve" for the German labor market to reduce the shortage of skilled workers. To this end, the article estimates the size of the heterogeneous, untapped workforce potential and brings the different stakeholder groups in connection with concrete vocational training needs and reform proposals.

2 Shortage of skilled workers in Europe: Top position Germany

Current survey data point to an increasing need for skilled workers in Europe's central economic sectors – meanwhile around every third EU company complains this mischief. Germany holds the "sad European record": The need for skilled workers is particularly high here: Across all sectors, around half of all companies surveyed report that their business activities are being impaired by a lack of skilled workers. This peak has been generated by a continuous increase since 2009 – started at 10% (DIHK, 2022: 13; Peichl et al., 2022, p. 71ff.).

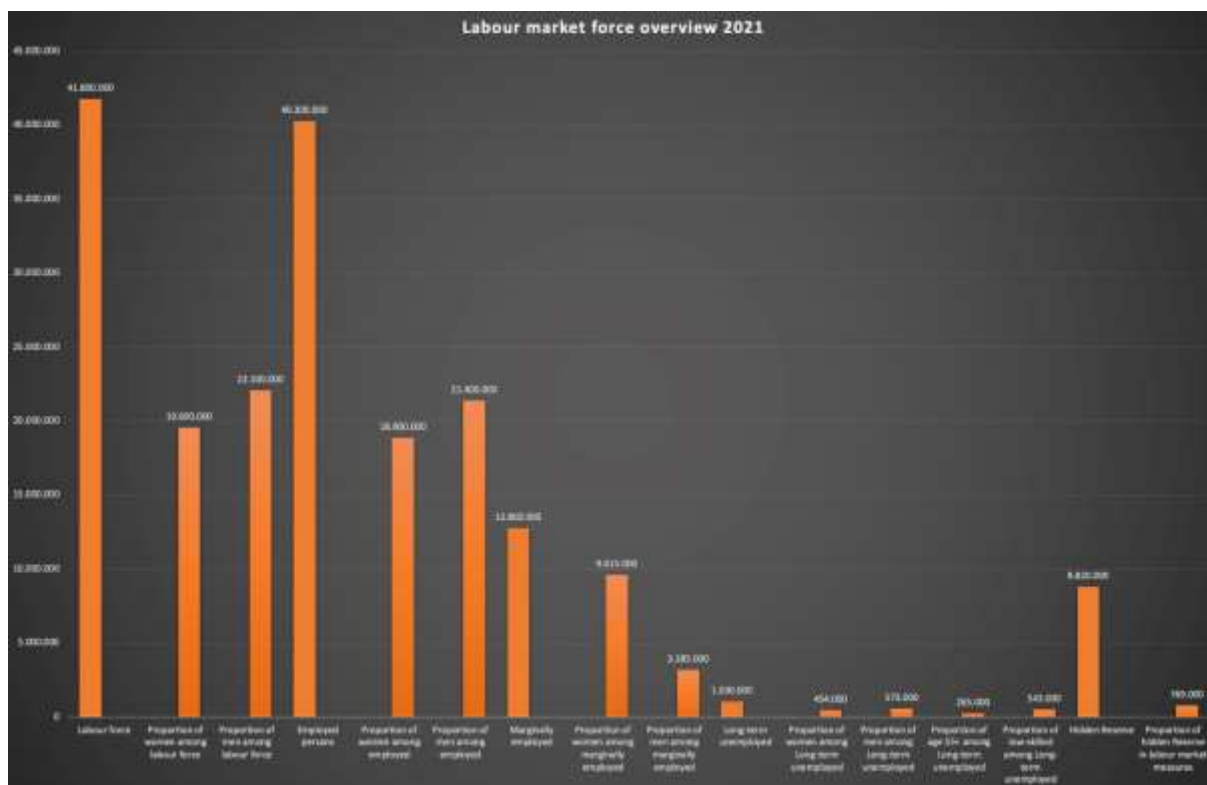
There are many reasons for the increased need for skilled workers in Germany, but the main cause is the demographic change: the workforce (aged 20-65) will decrease by around four million by 2030 (BMWK, 2022). In return person-related services are becoming increasingly important in an ageing working society (Menge et al., 2017). At the same time, the digital and ecological structural change producing an increased need for qualified specialists (Maier et al., 2022: 17; Peichl et al., 2022: 73). Despite the increasing demand on the labour market, fewer and fewer young people are opting for vocational training (BMBF, 2022: 24-28). The situation has become particularly aggravated due the corona crisis. The pandemic situation has not only been responsible for the decline in the number of company training places, but the shortage was exacerbated by a massive change of skilled workers in the hospitality or tourism industry to other sectors of the economy (BMBF, 2022: 31-32; Dohmen 2020; Jansen & Risius, 2022). Since with the retirement of the so-called baby boomer generation many skilled workers with dual vocational training are leaving the labour market (Maier et al., 2022: 16), an increasing need for skilled workers can also be expected for traditional training occupations (Maier et al., 2022).

3 "Reserve army" as substitution potential

Declining absorption rates in the vocational training system, stagnating development in career orientation, high long-term unemployment rates: are these "reserve" groups in the labor market suitable for making use of the unused labor force potential by "activating" it? This group includes the following (see Fig. 1; overlaps are possible):

Figure 1

Labour market force overview 2021



Source: Own representation

- **Marginally employed** (part-time employees and so-called mini-jobbers): There is a significantly higher proportion of women here: in 2021, 10 million women worked in marginal jobs (men: 3 million) (Bundesagentur für Arbeit, 2022a: 6-7).
- The so called "**hidden reserve**" ("stille Reserve") includes people in labor market policy measures (2021: 780,000) as well as people who would only take on paid work when the economic situation improves or if funding conditions were to change. Due to this pro-cyclical behavior, the hidden reserve can be classified as dependent on the economy (Böhm, 2011: 8-9). In 2021, this was 25.4% of women registered in Germany and 17.3% of men between the ages of 15 and 65 (Bundesagentur für Arbeit, 2022b: 5-6). The IAB (Institut für Arbeitsmarkt- und Berufsforschung), the Research Institute of the Federal Employment Agency in Germany, divides this group into "within measures" (people in qualification measures and in early retirement) and "in the narrow sense" (so-called discouraged workers and people in holding patterns of the education system). The latter group is not officially recorded and the number of people within this group must be estimated (Böhm, 2011: 8).
- Internationally, this group is defined in a much narrower sense as so-called "discouraged workers" or under the term "hidden unemployment", but there is no standard definition for the latter. In general, the group of the so-called "discouraged workers" can be described as people who are not actively seeking employment but would become available for employment under certain conditions. During unfavorable economic situations, they withdraw from seeking employment because they do not think they have a chance of getting a job due to the unfavorable economic situation or their own low qualifications. They return when there is an economic upswing and thus offer an explanation for the pro-cyclical behavior of the hidden reserves (ILO, 2010: 14).

- **Migrants:** In 2016, the labor force participation rate of EU foreigners was 80.1%, higher than that of Germans (79.4%). The reason for this is the recently sharp increase in labor immigration from the EU. For non-EU foreigners, the employment rate (15-64 years) was 58.5%, well below the average (Brenke & Clemens, 2017). In addition, the employment rate within this group fell sharply between 2011 and 2016, with the exception of older people. The reason for this is the influx of asylum seekers, since they only receive a work permit after they have been granted a residence permit. A comparison of labor force participation by gender shows that the labor force participation rate (men, 15-64 years) is 68.1%; Women reach only 48.0% (Buslei et al., 2018: 18).
- **The low-skilled without formal qualifications as well as unskilled and semi-skilled workers:** Overall, the low-skilled rate (transition system, career orientation) is declining. For women there is an increase in qualifications, which in 2014 led to the equality of the gender-specific proportion of low-skilled workers. In the age cohort of 25 to 29-year-old women with a university degree, the employment rate (30%) is higher than that of men (25%) (Statistisches Bundesamt, 2016).

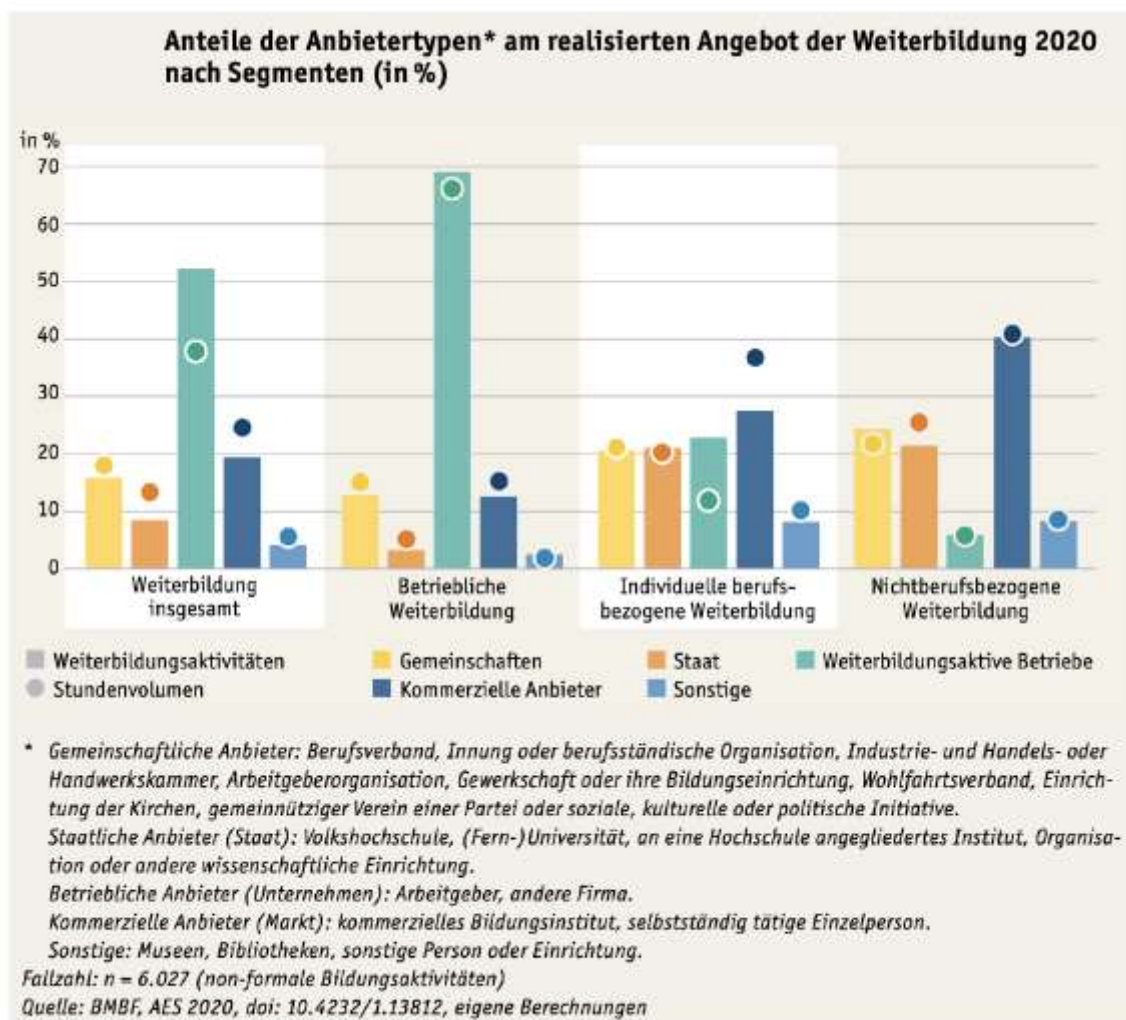
4 Focus and strengthen vocational education and training

For all of the target groups listed above belonging to the “hidden reserve” of the German job market, the integration into the job market can only work if they undergo a more or less lengthy (re)qualification process. In the vocational training system of the Federal Republic of Germany, this can be achieved either through (renewed) initial vocational training, retraining based on previous qualifications (according to BBiG §46) or through further vocational training measures.

While the first two options (initial vocational training and retraining) are subject to clear legal regulations (BBiG), the area of further vocational training in Germany is of a very diverse nature and is much less regulated overall. The sponsorship is plural, the nature and supply of the further training measures is market-oriented and the financing can be provided either by individuals, the state or by private companies (Lipsmeier & Münk, 1997).

A very important problem is that in-company training (and thus the companies as the financing institutions) by far accounts for the largest part of further vocational training in Germany (Authors’ Group on Educational Reporting, 2022; see Fig. 2).

Figure 2
Continuing education providers in Germany by share



Autor:innengruppe Bildungsberichterstattung Deutschland in Deutschland 2022, Bielefeld, S. 228

Source: Autor_innengruppe Bildungsberichterstattung Deutschland (2022)

However, most of the above-mentioned target groups of the "reserve army" or the "hidden reserve" are characterized by the fact that they are by definition not integrated into company structures because they do not have an employment relationship. This means that the financing of a cost-intensive further training process - and even more so initial vocational training or retraining - can either be carried out individually, which can largely be ruled out in view of the unemployed status of those affected; the second possibility remains the full state financing of such measures in the sense of a state curative further training strategy.

To make matters worse – based on research (e.g. Gösch, 2023) – this very heterogeneous clientele, who for various reasons is very difficult to integrate into the job market, only has a good chance of integration if intensive case management including coaching activities is carried out. In any case, such measures are clearly too expensive to leave the financing to the individuals. In this respect, the only remaining option is exclusively, or at least predominantly, state funding, which appears illusory in view of the large numbers and the high heterogeneity of the entry requirements under the current conditions of state funding for vocational/in-company further training. A look at the state of research clearly shows that in the case of the target groups focused here, lengthy, time-consuming and therefore, of course, cost-intensive

measures of psychological-medical and social support (case management) must be carried out before any attempt at professional support can be made and (Re-)integration can begin (Ixmeier, 2022).

Another option which quickly comes to mind is the integration of difficult target groups into the labor market through (renewed or initial) vocational training. A quick look at this option however shows that it can only be expedient under very clearly defined preconditions because the initial vocational training in the dual system is only 25% state-financed, which means that the companies are clearly mainly responsible for financing in these cases. Empirical evidence for the unwillingness of companies to finance such integrative measures is available, for example, for the question of the integration of young refugees into the dual system. The admission and thus the success rate of realized training contracts for this target group is negligible, even seven years after the first large wave of migration into the Federal Republic of Germany (Scheiermann, 2022).

5 Conclusions

All in all, this diagnosis gives little reason for optimism, since the cost for the qualification of such heterogeneous target groups with such different entry requirements are immense and would have to be financed mostly by the state. The funding of continuing vocational training over the last two decades shows, however, that the share of government funding in the field of continuing vocational training (in contrast to company and individually financed further training measures in the Federal Republic of Germany) has been steadily declining. In this respect, a trend reversal of the state further training strategies pursued in the vocational training system in Germany seems urgently necessary in order to offer effective qualification measures that are as targeted and tailor-made as possible for the extremely difficult and heterogeneous target groups considered here in the above-mentioned sense.

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