



PolicyBrief #2019/05

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## Low-skilled workers in Germany – low wages, precarious conditions

An increasing number of low-skilled workers in Germany are employed, but they often earn low wages and are subject to precarious employment conditions. A look beyond our borders shows that a high employment rate among low-skilled individuals is also feasible under better conditions, as long as education and labor-market policies are equipped with the appropriate instruments and resources.

The empirical portion of this text is based on the [study](#) “Geringqualifizierte in Deutschland. Beschäftigung, Entlohnung und Erwerbsverläufe im Wandel” (Low-skilled workers in Germany. Employment, Remuneration and Careers in Transition; available only in German) which was conducted by Werner Eichhorst, Paul Marx, Tanja Schmidt, Verena Tobsch, Florian Wozny and Carolin Linckh on behalf of the Bertelsmann Stiftung.

Some good news to start with: The share of low-skilled individuals within the general working-age population has been declining for years. As described in the 1997 International Standard Classification of Education (ISCED), low-skilled refers to people without an upper-secondary-level school diploma, or people who have completed no more than a lower-secondary-level education. According to Socio-Economic Panel (SOEP) data, 27 percent of West Germany’s population between 25 and 64 years of age was classified as low-skilled

in 1985. However, this share had declined to just 12 percent in 2016, driven by the expansion in education from the 1960s to the 1990s. In East Germany, this share declined from a bit over 6 percent in the 1990s to 3 percent in the 2000s, and then rose back to 6 percent by 2016. However, while the average age of people with medium-level skills (those who have undergone vocational training, or whose highest level of education completed is the upper-secondary level) rose between 1995 and 2016, reflecting the general demographic trend, the average age of low-skilled individuals declined over the same period. Too many young people are still leaving the educational system without a professional or vocational qualification. By contrast, the share of women among the low-skilled has declined in both geographical regions. In East Germany, this proportion fell from 72 percent (1995) to 48 percent (2016), while in West Germany the corresponding decline was from 66 percent to 54 percent.

Low-skilled people, like those in other labor-market categories, have benefited from the positive labor-market conditions. In West Germany, the share of low-skilled people in employment increased from 48 percent to 63 percent (1985 – 2016), while the share of economically inactive people, or those no longer on the labor market, fell from 49 percent to 24 percent. However, the unemployment rate among the low-skilled population also rose from 4 percent to 13 percent (see Figure 1). A look at the corresponding figures among those with medium-level skills indicates that the employment rate among the low-skilled is comparatively low despite the positive trends. The employment rate among those with medium-level skills in West Germany rose from 69 percent to 82 percent (1985 – 2016).

A longitudinal analysis from 2010 to 2016 shows that only a few low-skilled workers achieve a higher level of education through further training. In the above period, 3.7 percent of the low-skilled achieved an intermediate (3.5 percent) or higher (0.2 percent) qualification level.

### Higher unemployment rates in East Germany

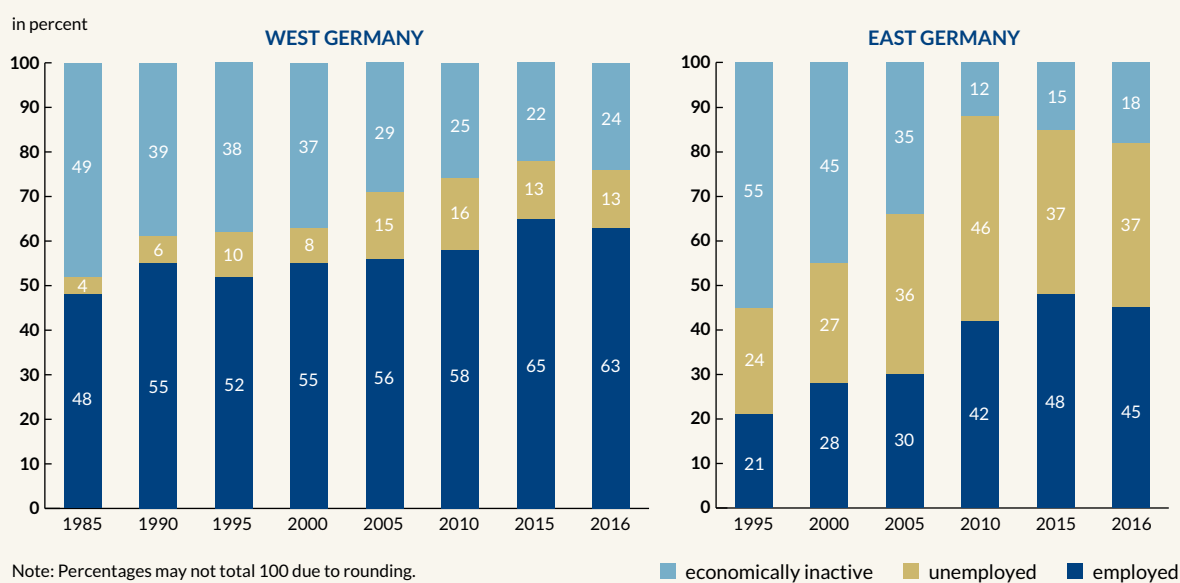
Although the share of employed low-skilled people in East Germany more than doubled between 1995 and 2016 (rising 24 percentage points, from 21 percent to

45 percent), the unemployed share is more than three times greater than in West Germany, having risen from 24 percent in 1995 to 37 percent in 2016. In the same period, the economically inactive rate fell from 55 percent to 18 percent. The fact that low-skilled individuals in East Germany constitute a comparatively small group may help explain this regional anomaly.

### Structural change is affecting the low-skilled too

Technological change and the globalization-driven relocation of certain work tasks and activities abroad is leading to structural shifts in the fields of activity pursued by the low-skilled. For example, they are today working more often in the services sector. In examining the 10 most important occupational fields for low-skilled people between 1985 and 2015, an increase is evident for sales assistants and other service-sector workers, as well as for metal workers and mechanics (see Figure 2). By contrast, the share of vehicle drivers and mobile equipment operators has declined, as has that of mining and construction workers. These jobs are more often filled by people with medium-level skills. The ongoing structural transformation has reduced the general demand for labor in these areas, as the potential for technological substitution within these occupations is particularly high (Dengler and Matthes 2018). In a similar sense, further employment effects for low-skilled individuals can also be expected.

FIGURE 1 Development of labor-force participation rates among the low-skilled in West and East Germany

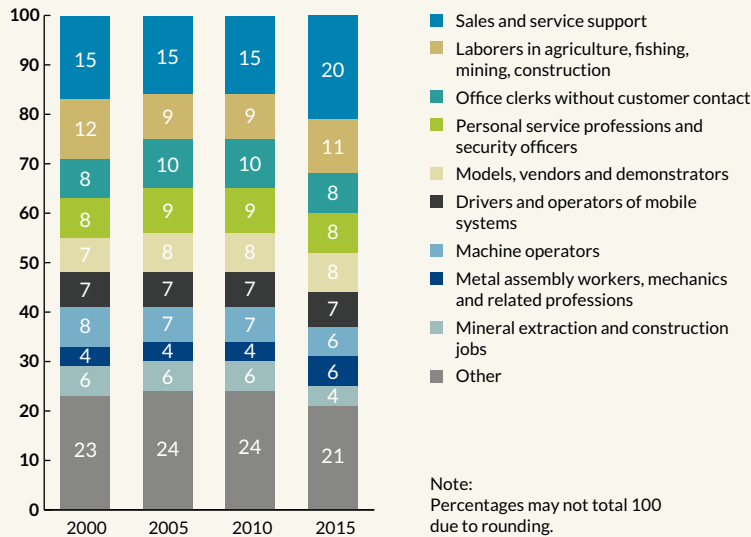


Note: Percentages may not total 100 due to rounding.

Source: SOEP (v33.1), persons aged 25 to 64, weighted and extrapolated (own calculations).

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**FIGURE 2 Development of the most important occupations among the low-skilled in Germany 2000, 2005, 2010 and 2015**  
in percent



Source: Microcensus, persons aged 25 to 64, weighted and extrapolated (own calculations).

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does not permit a conclusion as to whether this was a one-time effect, or whether the minimum wage might instead allow the wages earned by low-skilled individuals to rise over a longer period of time (see Figure 3).

In West Germany, 31 percent of the low-skilled population and 15 percent of those with medium-level skills worked in the low-wage sector in 2016. The corresponding figures in East Germany were 79 percent of the low-skilled, and 40 percent of those with medium-level skills. The difference between the groups is thus significantly greater in East Germany. The definition of low wage references the median wage in the economy as a whole rather than using regional comparison wages.

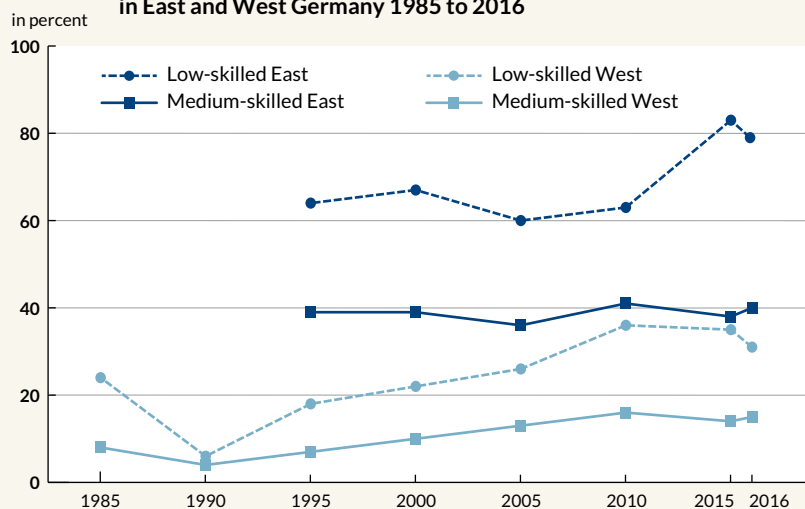
The fact that the regional wage differential between the two geographic areas remains large helps explain the presence of a large low-wage sector in East Germany. In 2017, the average gross monthly income (excluding one-time payments) for workers in the manufacturing and services sectors in

### Low wages for the low-skilled

Contrary to the welcome increase in the employment rate, wage trends among the low-skilled employed population have not been able to keep pace. The share of low-skilled people working in the low-wage sector has increased since the 1990s (“low wage” is here defined as a gross hourly wage that is less than two-thirds of the median gross hourly wage economy-wide; in 2014, this threshold was €10, according to the Datenreport (2018)). For some time, gross hourly wages for those with medium-level skills had been rising faster than wages among the low-skilled. This trend was halted only by the introduction of the minimum wage; thus, in 2016, a small decline in the share of low-skilled people with low wages emerged. The data underlying this observation

differential between the two geographic areas remains large helps explain the presence of a large low-wage sector in East Germany. In 2017, the average gross monthly income (excluding one-time payments) for workers in the manufacturing and services sectors in

**FIGURE 3 Share of low-income earners among the low- and medium-skilled in East and West Germany 1985 to 2016**  
in percent



Low-income earners: Gross hourly wage up to 2/3 of the median of the gross hourly wages.

Source: SOEP (v33.1), persons aged 25 to 64, weighted and extrapolated (own calculations).

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West Germany and Berlin was €3,394, as compared to €2,985 in East Germany (Datenreport 2018). However, this should not obscure the fact that a majority of the comparatively small group of low-skilled people in the East German region receive low wages, a phenomenon thrown further into relief by comparison with the mid-level skill group.

## Rise in precarious employment conditions

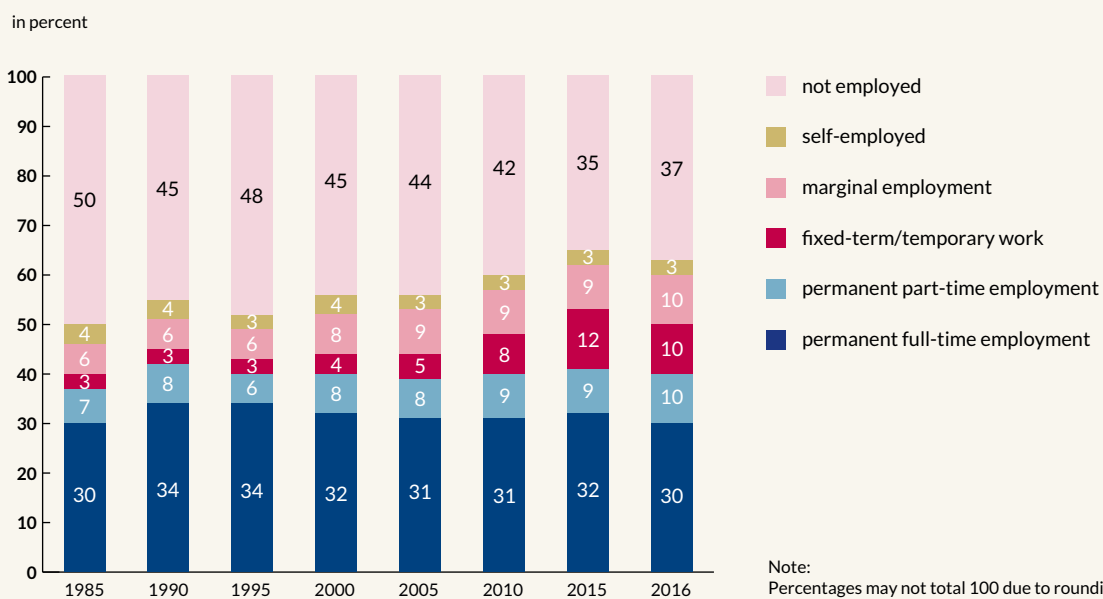
The positive picture of increased employment among the low-skilled clouds somewhat when considering these individuals' actual working conditions. Their increased labor-market participation rate is associated with comparatively frequent employment under atypical contract forms (e.g., marginal employment offering less than 20 hours per week, as well as fixed-term or temporary work).

In West Germany, the share of low-skilled individuals in permanent full-time positions has hovered around 30 percent since 1985, showing only small upward and

downward movements. By contrast, the share of fixed-term and temporary work has risen strongly (from 3 percent in 1985 to 10 percent in 2016), as has the share of marginal employment (see Figure 4). The increase in labor-force participation among the low-skilled was therefore due in large part to such atypical forms of employment. These developments are not specific to the low-skilled population; indeed, they have also been observable among those with medium-level skills. Part-time and marginal employment rose between 1985 and 2016 in West Germany for this group too, though from a low starting point (from 4 percent to 8 percent). Moreover, the share of full-time employment for this group declined somewhat, from 49 percent (1985) to 47 percent (2016).

A comparatively large share of low-skilled individuals in non-fixed-term part-time employment would prefer to work more. In 2016, 25 percent of those with medium-level skills in open-ended part-time employment wanted to work more (on average, they wanted to work eight additional hours per week); by contrast, this figure was 39 percent among those with low-level qualifications. This latter group wanted to work an average of 13 additional hours per week.

FIGURE 4 Development of employment forms among the low-skilled in West Germany 1985 to 2016



Source: SOEP (v33.1), persons aged 25 to 64, weighted and extrapolated (own calculations).

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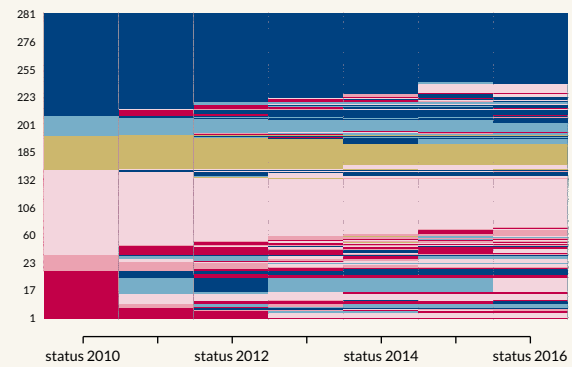
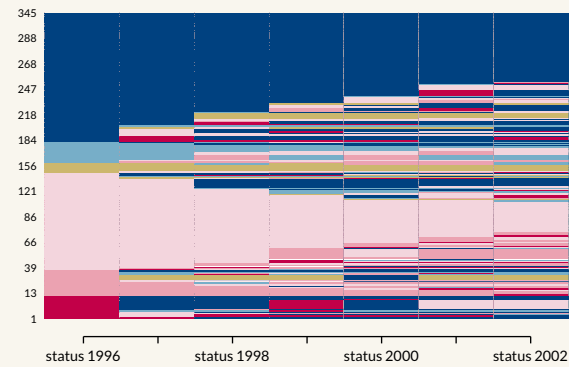
FIGURE 5 Sequence index plots for work histories of 30- to 44-year-olds

1996 to 2002

2010 to 2016

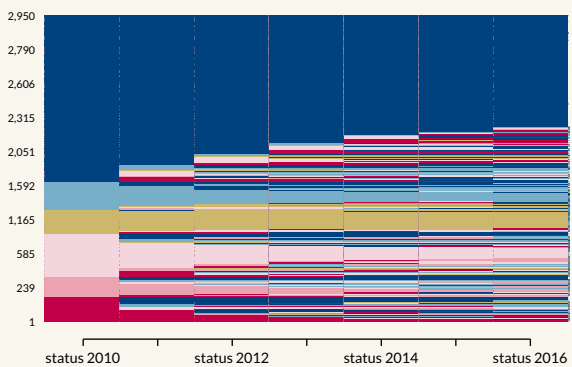
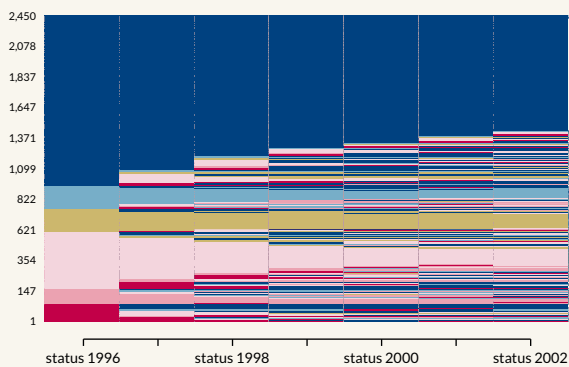
Low-skilled (11.9 %; N = 352)

Low-skilled (7.9 %; N = 303)



Not low-skilled (88.1 %; N = 2,549)

Not low-skilled (92.1 %; N = 3,556)



- fixed-term/temporary work
- not specified
- marginal employment
- permanent full-time employment
- not employed
- self-employed
- permanent part-time employment

Note: Each line in this sequence plot index corresponds to an individual, with the work histories sorted according to status in the first year. All individuals for which continuous work-status data was available were included. The figures are displayed in the same format even though the number of individuals included varies. In order to allow for cross-comparison, figures along the Y axis have been normalized.

Source: SOEP (v33.1), weighted sequences, sorted (own calculations).

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### Increasingly turbulent work histories

A longitudinal analysis of all workers' individual employment histories over the period of review indicates that work histories have become more unstable overall, and that normal employment relations (that is, permanent full-time contracts which are subject to social security contributions) are on the decline. Figure 5 illustrates this through the use of sequence index plots comparing the low-skilled and non-low-skilled (e.g., medium-skilled and high-skilled) pop-

ulations over the 1996 – 2002 and 2010 – 2016 time periods. Employment histories became more unstable within both of these groups of 30- to 44-year-olds. However, this was particularly pronounced among the low-skilled, where periods of atypical employment increased significantly. This is problematic, because turbulent work histories make it difficult to stabilize income over the long term, and prevent the acquisition of further skills – something that is particularly important for low-skilled individuals.

## Germany rates poorly in international comparison

A comparison of labor-market conditions for low-skilled populations in Germany, Denmark, France, Sweden and the United Kingdom shows that Germany trails with regard to wage or competence levels, and with regard to participation by low-skilled individuals in continuing-education programs.

### The share of low-skilled people earning low wages is particularly high in Germany

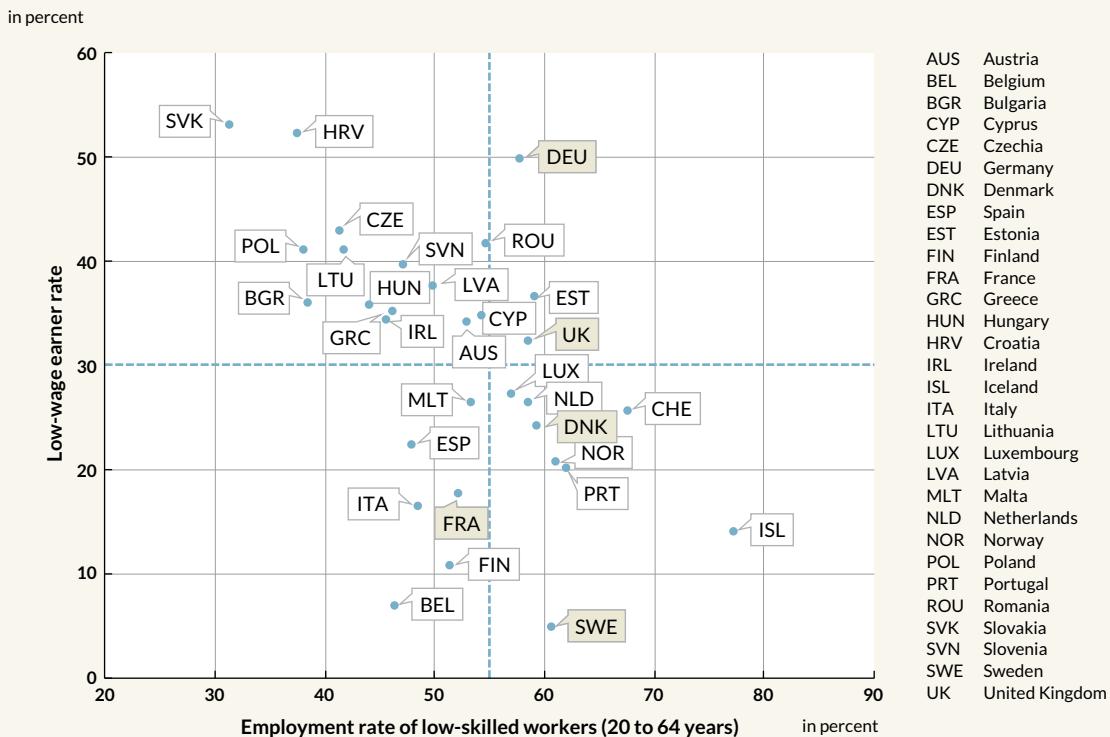
The proportion of low-skilled people within the labor force at large has declined in all five countries. This is converging today at a share between 15 percent and 20 percent.

However, the international comparison shows that a high rate of employment among the low-skilled does not necessarily have to correspond to a high share of low-wage earners, as is the case in Germany. Both the

size and composition (e.g., age, or ratio of people with a migrant background) of the low-skilled population is important in this comparison, as these factors are key determinants for the ability to integrate into the labor market. Within this international comparison, Germany had a medium-level employment rate for low-skilled individuals in 2000, along with an above-average low-wage rate. By 2014, the share of low-skilled individuals in employment had risen, so that Germany, Denmark, Sweden and the United Kingdom showed a nearly equally high employment rate within their low-skilled populations (around 60 percent; see Figure 6). However, within this group of countries, Germany had the highest share of low-skilled individuals earning low wages. This rate was about 50 percent in Germany, as compared to 33 percent in the United Kingdom, and just over 5 percent in Sweden. France also had a relatively low share of low-wage recipients in 2014 (18 percent); however, its employment rate was also somewhat lower than in the other countries (52 percent).

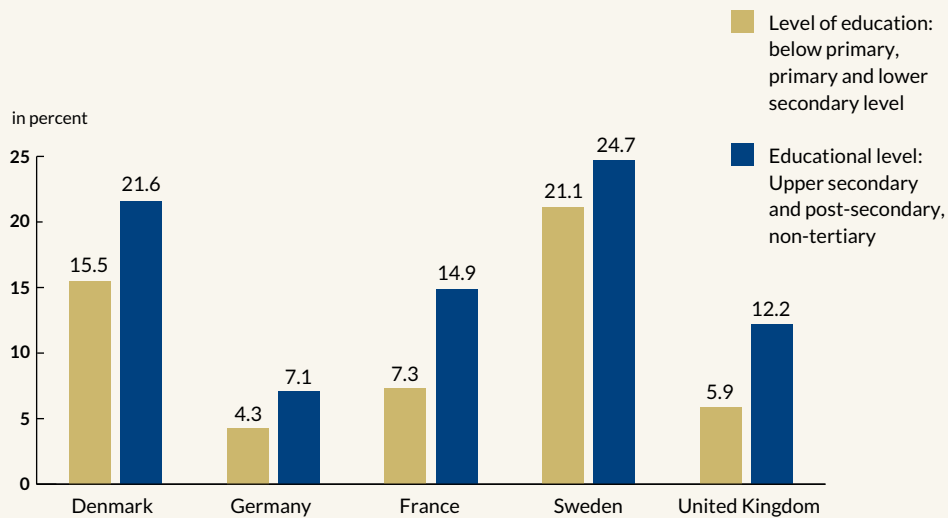
Institutional frameworks for wage determination, such as coverage under collective-bargaining agreements, replacement rates or the stringency of conditions for

FIGURE 6 Employment rates and share of low-wage earners among the low-skilled in 2014



Source: Eurostat (2017), Low-wage earners as a proportion of all employees (excluding apprentices) by educational attainment level. | BertelsmannStiftung

**FIGURE 7 Participation in continuing education programs by educational attainment level, 25-64 year olds in 2018**



Source: Eurostat (2019), Participation in education and training by gender and level of education. | BertelsmannStiftung

receiving unemployment-insurance benefits (e.g., conditions for job seekers, sanctions for refusing an employment offer, eligibility criteria), cannot conclusively explain the differences between countries. There must therefore be other reasons why the share of low-skilled individuals in the low-wage sector is comparatively high in Germany.

#### Low de facto competence levels in Germany

The actual competence level shown by low-skilled individuals in Germany – measured on the basis of the OECD’s Program for the International Assessment of Adult Competencies (PIAAC) performance test – is low in comparison with other European countries. This differing point of departure must be taken into consideration when comparing employment figures. Basic skill levels with regard to reading comprehension and mathematics, assessed in 2011 and 2012 using the PIAAC, were significantly lower in Germany and France than in Denmark, Sweden or the United Kingdom. One possible explanation for this could be that school systems in Germany and France are fundamentally worse at furnishing youth with basic skills. However, the differential could also derive from the composition of the various countries’ low-skilled populations

(with regard to age, migration background or language knowledge, for example). Regardless of which effect plays the larger role, long-term policy in Germany should be focused on increasing the basic skill levels within the population – both in the school context, and in vocational (continuing) education settings. This is particularly critical because basic skills play an important role in helping low-skilled individuals integrate into the labor market.

#### Low-skilled people in Germany rarely take part in continuing-education programs

Continuing education promotes the acquisition of useful skills. However, while just 4.3 percent of the low-skilled in Germany indicated in a 2018 survey that they had participated in a training or continuing-education program within the last four weeks, this figure was 16 percent in Denmark, and 21 percent in Sweden (see Figure 7).

## What makes other countries different?

Even if the institutional backgrounds and the composition of the low-skilled populations vary, the other countries' better performances allow lessons to be derived for Germany with regard to how low-skilled individuals can be better integrated into the labor market, with higher wages.

### Significantly increased minimum wage in the United Kingdom

In the United Kingdom, active labor-market policies in the sense of continuing-education support is practically non-existent. Against this background, the minimum wage plays a critical role in decreasing wage inequality. Its introduction in 1999, along with later increases, has led to more significant wage compression without producing any substantial employment loss. In 2020, the national living wage (a minimum wage for people 25 years and up) is slated to reach 60 percent of the median wage. The crucial point here is that the dynamic economic environment has to date been able to cope with the strong increase in the minimum wage, and companies have not reacted by decreasing their demand for low-skilled labor. Rather, they have offset their increased costs in other ways.

### Wage subsidies in France

In France too, the minimum wage plays a critical role, being comparatively high in relation to the median wage. The still-high employment rate among the low-skilled is achieved in large part through the provision of wage subsidies in the form of degressive social-system contributions. For employees with wages up to 1.6 times the minimum wage, employers receive relief on their portion of the mandated social-insurance contributions – the nearer the wage to the minimum wage, the greater the level of relief. This costs the French state about €25 billion per year, or about 1 percent of GDP.

Another conceptually interesting model is the personal training account (Compte personnel de formation), introduced in 2017, which allows individuals to acquire credits that can be used to pay for continuing-education programs.

These credits are not linked to a specific employment contract or employer. As yet, however, there is still a lack of conclusive studies evaluating this program's long-term impact on the labor market. To date, the low-skilled target group does not seem to have been sufficiently mobilized (DARES 2018).

### Continuing-education policies in Sweden

Sweden benefits from long traditions of social partnership, and for years has been a pioneer in the promotion of human capital. In addition, the country has pursued a comprehensive active labor-market policy, which in principle is easily transferrable to other countries. Informal labor-market training measures are common in Sweden, and have had considerable visible effect. Low-skilled individuals in Sweden are very well integrated into the labor market, and are afforded good opportunities to advance into better jobs (Calmfors et al. 2018). The country has achieved these positive results through substantial financial investments.

### Active labor-market policies and continuing education in Denmark

Like Sweden, Denmark pursues an active labor-market policy made up of numerous individual measures. The country invests significant sums in vocationally oriented training programs that are largely focused on low-skilled individuals. Even if no upward mobility into better jobs has yet been ascertained, low-skilled workers in particular benefit from higher wages and an increased employment rate. The positive effects are particularly significant when the measures take place on a part-time basis in parallel with existing work.



## What next? Good jobs for the low-skilled is not a zero-sum game

Integrating low-skilled individuals into the labor market while simultaneously shrinking the low-wage sector cannot be accomplished without cost. This has implications for labor-market and education policy. Denmark and Sweden offer examples of how the low-skilled can be integrated into the labor market over the long term, with good working conditions, without their wages being subsidized by the state. However, this requires that a functioning system of counseling, continuing education and support be used to invest in improving labor-force qualifications. In France too, the high wages earned by the country's low-skilled population come with a cost, as employers are given subsidies to offset the high minimum wage.

Ultimately, the determination of what kind of costs a system is ready to bear must be a part of the broader process of sociopolitical negotiation. Comprehensive investment in developing competences and improving the qualifications of the low-skilled, as today takes place in Sweden and Denmark, has greater long-term impact than subsidizing wages. German policymakers have taken a first step in the right direction with their qualification campaign, particularly as contained in the National Strategy for Continuing Education, unveiled in June 2019. Especially for low-skilled individuals who have long been out of work, the current situation calls for additional measures and resources.

### 1. Certify existing competences, thus making them transparent

More than two-thirds of employed persons who have not undergone vocational training today work in jobs for which they are formally underqualified, for example as skilled workers or specialists (Bürmann and Wiek 2018). They thus possess practical skills relevant to their occupation that they cannot substantiate with the help of a degree or certificate. This underscores the necessity of certifying informally acquired competences, thus rendering them transparent and transportable between employers. According to Bürmann and Wiek (2018), formally underqualified persons receive lower wages than people in the same position who have the

relevant formal qualifications. Formally demonstrating existing competences through a certification process could therefore also have a positive effect on the wages of low-skilled individuals.

The certification of competences is identified as an important action item in the National Strategy for Continuing Education. To this end, instruments must be provided that genuinely benefit low-skilled individuals, and which avoid imposing requirements that are too high (e.g., with regard to the time demanded, the costs or the complexity of the certification process). In this regard, the instruments must create transparency regarding existing skill levels even if these only partially fulfill formal qualification requirements. Moreover, given the more than six million of low-skilled individuals, the instruments must be both standardized and suitable for mass use.

### 2. Invest in training and continuing education in order to increase competence levels

While the certification of existing competences is one critical step, the use of continuing-education programs to promote the acquisition of competences that are currently lacking is equally important. The competences possessed by low-skilled individuals are the key to their integration into the labor market, as well as to the stabilization of their work histories. For this reason, people with low-level qualifications should be given intensive support particularly with regard to increasing their de facto skill level through targeted, labor-market-oriented continuing-education programs. These individuals must also be provided with comprehensive counseling both before and after the continuing-education measures in order to help them integrate successfully into the labor market even without a formal degree. Noack et al. (2019) note that people in atypical employment and unemployed low-skilled individuals seldom benefit from continuing-education programs, because these generally take place within companies or are funded by employers. They see an urgent need to substantially increase the amount of financial resources devoted to general and vocational continuing education, and to improve counseling services. The National Strategy for Continuing Education is an important step in this direction. Above all, the strategy's provision of a legal entitlement to return to school for a subsidized vocational degree is the correct way forward. However, in order to achieve

this goal, low-skilled individuals – as noted above – will need a comprehensive network of counseling and financial support in order to overcome barriers to their own participation in continuing education.

### 3. Help lift people out of part-time work

Germany's labor-market policy should embrace the desire expressed by many workers with low skill levels to work more, supporting this goal with corresponding measures. Longer working hours can promote the development of new skills, thus potentially helping individuals advance in their careers; similarly, longer hours help increase incomes and reduce dependence on the welfare state. For this reason, reforms of the tax and transfer systems should seek to bring low-skilled individuals out of marginal and part-time jobs, and into better employment conditions. Additional work must be financially worthwhile, and thus become more attractive.

### 4. Raise the minimum wage within reason

The introduction of a statutory minimum wage seems to have at least partially stopped the trend in which gross hourly wages among those with medium-level skills were rising faster than wages for the low-skilled. Indeed, the share of low-skilled people in the low-wage sector fell slightly in 2016.

The income limit for "minijobs" (a minijob is a marginal employment relationship in which the monthly salary may not exceed 450 euros) is accompanied by an automatic limit on the maximum possible number of hours worked per week. The minimum wage can thus represent an effective means of restricting minijobs. For this to function effectively, however, this maximum working-hour limit must be more widely observed. Fedorets et al. (2018) show that the minimum wage is often circumvented through an increase in unpaid overtime. Stronger monitoring of employers' adherence to contractually agreed working hours would thus be an important first step.

Over the long term, increased competence levels within the population at large should also be accompanied by a higher minimum wage. In order to avoid negative effects on employment levels, policymakers should take care to judge the appropriate time and amount of

such increases carefully, so that the higher wage costs will also be reflected in higher productivity levels.

## Conclusion

To ensure that low-skilled individuals are not perpetually uncoupled from the positive labor-market developments, policymakers in Germany must act. Through support services and continuing-education programs, low-skilled individuals must be empowered to secure better employment conditions. While this will be expensive, it will bring benefits over the long term, because it will reduce costs created by unemployment and low earnings. The Scandinavian countries show what is possible in this respect. An increased competence level would allow the statutory minimum wage to be increased, thus improving incomes among the low-skilled population. This should take place only after a careful assessment of the appropriate timing and amount of such increases, in order to avoid possible negative employment consequences. In addition, by reforming the tax and transfer system, German labor-market policy should make it more financially attractive to take up more than only marginal employment.

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This text is largely based on the following study:

Eichhorst, Werner, Paul Marx, Tanja Schmidt, Verena Tobsch, Florian Wozny and Carolin Linckh (2019): *Geringqualifizierte in Deutschland. Beschäftigung, Entlohnung und Erwerbsverläufe im Wandel*. Bertelsmann Stiftung.

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