

# Short-time work in Germany

## Employment bridge in the coronavirus crisis

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In the coronavirus pandemic, short-time work has been one of the key instruments for stabilising employment in Germany. There has also been a considerable degree of policy experimentation, making the use of short-time work much more attractive. Changes include extension of the payment period, top-ups of the allowance after certain durations, easier access to the scheme and financial incentives for employers. The aim of our contribution is to give an overview of how short-time work in Germany has shaped the degree of furlough and has helped to preserve employment during the current crisis.

*Nella pandemia da coronavirus, il lavoro ridotto è stato uno degli strumenti chiave per stabilizzare l'occupazione in Germania. Il notevole grado di sperimentazione politica ha reso l'implementazione del lavoro ridotto molto più interessante. Le caratteristiche includono una proroga del periodo di pagamento, aumenti dell'indennità dopo determinati periodi di tempo, un accesso facilitato a tale strumento e incentivi finanziari per i datori di lavoro. Lo scopo del nostro contributo è fornire una panoramica di come il lavoro ridotto in Germania abbia influito sull'utilizzo della cassa integrazione e abbia contribuito a preservare l'occupazione durante l'attuale crisi.*

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### Introduction

The German labour market is under threat due to the coronavirus pandemic. The massive use of short-time working (STW) has safeguarded threatened jobs in a dimension not comparable to previous economic crises: for example, the oil price crisis 1973-75 (Flechsenshar 1979), the post-unification crisis (when the labour market in the former GDR collapsed, Seifert 1994) and the 2008/2009 financial crisis (Herzog-Stein and Seifert 2010; Möller 2010). Without the use of STW, the number of unemployed could have almost doubled<sup>1</sup>. But the use of STW is

also structurally very different from previous crises. While STW was previously mainly applied in the manufacturing sector, currently the service sector is also heavily affected. The composition of STW has changed accordingly.

The following analysis provides an overview of the structure of STW in Germany during the coronavirus pandemic, the volume of their working time reductions and the resulting income situation. The paper starts with an overview of the wide-spread use of STW schemes during the coronavirus pandemic in a number of countries.

<sup>1</sup> BA (2020d) estimates an employment equivalent of working time reductions in STW of 2.9 mio. in April 2020.

We then introduce the economic rationale behind STW (micro- and macroeconomic) and the legal framework of the German STW scheme and the amendments to the law that have been made during the coronavirus pandemic. After a short presentation of our data sources, we then proceed with a descriptive overview of STW numbers and the resulting working time reduction. Other important characteristics include the changed composition of workers affected by STW: more women and more service workers. We then examine earning losses due to STW in the coronavirus pandemic and describe who has benefited from STW top-ups, either by collective agreement or by law. The paper concludes with an examination of the degree of participation in further training, as STW may be used for this purpose, in order to strengthen participants' prospects on the labour market. The final section sums up our findings.

### 1. Use of STW has increased in a number of countries

STW differs significantly in international comparison, concerning the amount and the duration of the benefits paid, the eligibility requirements and finally also the intensity of use. A comparison by the OECD (2020) shows that some of the countries only introduced STW in the wake of the coronavirus pandemic (the UK, Iceland, a number of CEEC such as Baltic countries, Hungary and Slovakia) or, alternatively, paid wage subsidies for reduced working hours. In contrast, STW has a long tradition in Germany that goes back to the 1920s in an institutionalized form.

As regards the intensity of use, a comparison of OECD member states for May 2020 shows that STW has been used on a very large scale in New Zealand (> 60% of eligible workers), UK (>30% of workers) and a number of European countries. The proportion of eligible workers in STW notifications in EU member states has been highest in France (48%), Italy (47%), Luxemburg (44%) and Slovenia (36%), while Germany has been in the middle field (29%) (Müller and Schulten 2020). These numbers represent employers' notifications for STW and do not necessarily match figures for the actual use of STW that can usually only be measured with a time lag.

Moreover, several countries extended eligibility to atypical workers, fixed-term or temporary agent workers (OECD 2020)<sup>2</sup> and have relaxed the requirements for receiving short-time allowance and (for example, lowered the thresholds for reducing working hours). In addition, some countries decided to prolong the maximum duration of short-time work benefits. With a maximum of 24 months Germany has the highest duration of all OECD countries (OECD 2020). In Sweden, Italy and Austria, for example, the duration of benefits has also been extended, but to a maximum of 12 months, and in some countries even significantly less (Müller and Schulten 2020). The amount of short-time work allowance also varies widely. It is particularly generous in the Netherlands and Denmark with a 100% replacement rate for lost working hours and only 60% in Cyprus or 50% in Poland. In Germany it is 60 or 67% (employees with children), 70 or 77% starting in month four and 80 or 87% starting in month seven of STW. In this respect, the short-time work allowance in Germany is not the most generous, but it offers the longest crisis protection and is therefore one of the most effective measures to bridge the crisis.

As regards the employment effect of STW, several contributions have shown an inverse relationship between the use of STW and the development of unemployment. Countries in which the working hours of employees have been reduced, unemployment has risen less sharply than in countries with fewer working hours reductions (OECD 2020; Eichhorst *et al.* 2021; for the US during the Financial crisis see Abraham and Houseman 2014). Critics however note that STW may hinder the transition of workers into more productive jobs (Cahuc 2019).

Only few countries (e.g. Netherlands, France, Germany) provide training activities to workers on STW. In the Netherlands, employers applying for STW support have to declare that they actively encourage training, while the government has taken additional measures to make online training and development courses freely available (OECD 2020, 21). It is only little known how workers on STW made use of the training measures.

2 That does not apply to Greece where only full-time workers have access to STW. In Germany marginal employees are not included in the measure.

## 2. The economic rationale behind STW

The economic rationale for STW as labour market policy instrument can be inferred from a microeconomic and macroeconomic perspective. From a microeconomic perspective, STW is a form of internal flexibility (Atkinson 1984; Boeri *et al.* 2011) with a numerical and a functional dimension (Keller and Seifert 2007). Forms of internal flexibility offer enterprises the possibility to vary labour input according to the capacity utilisation by adjusting the average working time of employees but leaving their number unchanged. External flexibility, on the other hand, relies on varying the number of employees. STW is used to bridge cyclical and seasonal fluctuations (seasonal STW) and to avoid unemployment. As Boeri *et al.* (2011) and Hijzen and Venn (2011) noted, STW has contributed to reduced job losses already in earlier crises such as the Financial crisis of 2008-09. However, during prolonged economic slumps, STW may lose its power to safeguard employment (Arranz *et al.* 2018). The functional dimension of internal flexibility is to use the reduced working time, e.g. through STW, for vocational qualification and thus to increase the adaptation potential of employees to structural changes (new work processes, new products).

Internal flexibility can offer advantages to companies and employees compared to external-numerical flexibility, especially in the form of redundancies. Companies avoid costs for redundancies (social plans, severance payments), prevent acute liquidity problems (OECD 2020) and, when the economy improves, costs for re-employment (recruitment, induction). Well-established teams stay together and ensure team productivity. This aspect is particularly important where agile forms of work organisation have been implemented. In general, in the case of the alternative of redundancies, turnover or transaction costs increase with the degree and specificity of professional qualifications. These advantages are offset by remanence costs (Bach and Spitznagel 2009). They arise because the labour costs of the companies do not fall in proportion to the shortened working time because, for example, collectively agreed benefits are paid to top up the STW or the full Christmas or holiday bonus is granted.

STW also has advantages for workers. They retain their employment status, thus the independent source of income and entitlements from seniority or

other company benefits. In addition, they avoid the gradual loss of professional qualifications that would otherwise occur with prolonged non-employment. However, this is offset by income losses due to reduced working hours, but these would be more drastic in the case of unemployment. Finally, short-time work can also be more profitable for the public sector than the alternative of unemployment (Weber 2020).

In macroeconomic terms, STW has a stabilising effect on the economy (built-in stabiliser). The loss of income resulting from reduced working hours is largely compensated for by public and collectively agreed company benefits and stabilises private consumption (Will 2010; Pusch and Seifert 2021). Since some of the short-time workers receive top-up benefits, the average amounts paid are higher than those for unemployment benefits.

The use of short-time allowances is almost textbook anti-cyclical. At the beginning of the Corona pandemic in Germany, the Federal Employment Agency Bundesanstalt für Arbeit, in the following BA, had built up reserves totalling 25.8 billion euros from employers' and employees' contributions, which it used to a large extent for the short-time allowance of 22.1 billion euros paid in 2020 (BA 2021).

## 3. Regulatory framework of STW in Germany

Short-time work is a major instrument of active labour market policy in Germany, the others being income support through unemployment insurance and active labour market policy such as further training activities and mobility support measures. Only employees who are subject to social security contributions are entitled to benefits. These are employees who pay a contribution to the unemployment insurance scheme, which is financed on a parity basis; half of the contribution is paid by the employer, the other half by the employee. In 2020, the contribution rate is 2.4 per cent of income up to a fixed contribution assessment ceiling on income.

The STW allowance is paid by the Federal Employment Agency (Bundesanstalt für Arbeit, BA), which administers unemployment insurance and active labour market policies. The BA pays STW allowances to the applicant companies, which in turn pass on the benefits to the employees together with their residual salary. STW compensation

amounts to 60 per cent of the net difference in remuneration, i.e. 60 per cent of the remuneration for the lost working time. For employees with children, the rate is 67 per cent. Starting in April 2020, the federal government has adjusted the legal framework several times. This has included an extension of the STW allowance until the end of 2021 to a maximum payment duration of 24 months. Under normal circumstances, STW compensation can be paid for up to 12 months. Moreover, from the fourth month, 70 per cent (77 per cent with child allowance) and from the seventh month 80 per cent (87 per cent with child allowance) are paid. Collective bargaining agreements (chemical industry, metal industry, partly public service etc.) increase the STW allowance to values between 75 and 100 per cent of the remuneration (Müller and Schulten 2020).

The conditions for access to the STW allowance have also been eased: the quorum for employees affected by the loss of working hours being reduced from 30 to 10 per cent and the accumulation of negative working time balances in working time accounts has been dispensed with. STW allowance has also been introduced for temporary workers and the full reimbursement by the BA of the social security contributions which the employer would have had to pay for the hours lost through STW has been taken over by the BA; from 1 July 2021 the latter is linked to participation in further training<sup>3</sup>. In short: during the coronavirus crisis, making use of the STW allowance has been made more attractive for companies and their employees.

Lastly, a word about those employed persons not covered by the STW regulations: civil servants, the marginally employed (mini-jobbers<sup>4</sup>) and self-employed persons<sup>5</sup>, including the solo self-employed, are not entitled to short-time work benefits. These gainfully employed persons do not pay unemployment insurance contributions and are therefore not entitled to benefits such as

STW allowance or unemployment benefits. They are only entitled to basic social security benefits. However, these are linked to a means test. In order to provide rapid assistance irrespective of the financial situation, the Federal Government has also granted self-employed persons (including solo self-employed persons) a subsidy towards fixed operating costs of up to € 9,000 for up to five employees and up to € 15,000 for a maximum of ten employees under its spring Covid-19 assistance programme (BMW<sup>i</sup> 2020). This aid is not intended to cover subsistence costs. Tax aid measures, simplified access to loans and guarantees have also been introduced. In the wake of the second wave of the coronavirus pandemic, the German government decided to provide further aid for the self-employed, especially the solo self-employed, whose sales have fallen sharply as a result of the pandemic. They can receive bridging aid in the form of grants. The November aid provides grants per week of closures amounting to 75 per cent of the average weekly turnover in November 2019 up to an upper limit of EUR 1 million (BMW<sup>i</sup> and BMF 2020).

#### 4. Data

Most of our empirical analyses are based on the two waves of the 2020 Hans Böckler Foundation survey of the working population (in the following: HBS survey), which were conducted as a quota sample within an online access panel<sup>6</sup>. The first wave was conducted in mid-April in the coronavirus lockdown phase and comprises data from 7,458 respondents. For the second wave, which was collected at the end of June, no panel refreshment was carried out. However, with 6,111 employees surveyed, the panel abrasion remained relatively small.

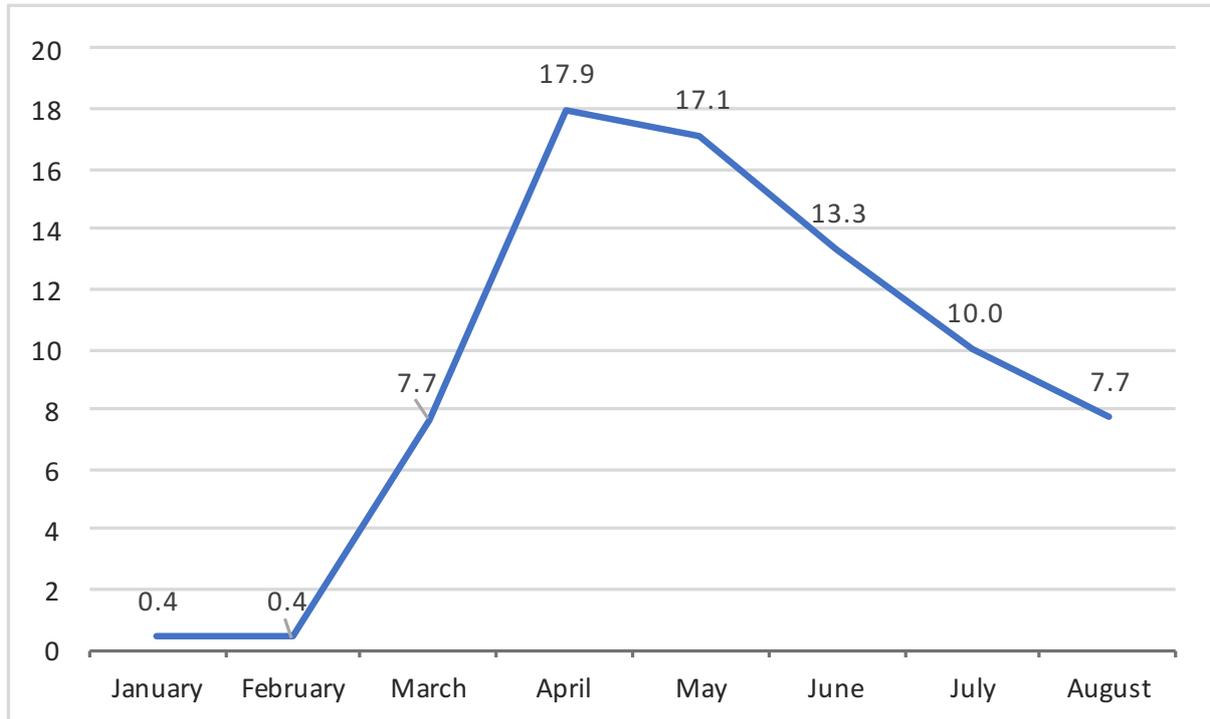
In addition to the survey information, we use administrative data about short-time work and employment provided by the BA. This data is contained in monthly reports (e.g. for October 2020:

3 The social security contributions are to be reimbursed in full by 30 June 2021. From 1 July 2021 to 31 December 2021 at the latest, half of the social security contributions will be reimbursed for all companies that introduced STW by 30 June 2021. This figure may be increased to 100 per cent if training is provided during STW.

4 Marginal workers are employees earning less than € 450 per month.

5 Of the 41.9 million employed persons in Germany in 2018, 4.0 million (9.6%) were self-employed, among which 2.2 million were self-employed without employees; Statistisches Bundesamt (2020b).

6 The structural composition of the interviewees was mapped based on fixed quotas according to the characteristics of age, gender, federal state and education and additionally corrected with weights. The quota targets are based on target figures from official statistics.

**Chart 1. Rate of STW (share of short-time workers of all employees subject to social insurance contributions), Jan. - Dec. 2020, per cent**

Source: BA 2020e, BA 2020d and other monthly BA reports from March 2020 to February 2021, own calculations

BA 2020d). Data is partly provisional and estimated, after a waiting period of 6 months there are no more revisions. Where data differs between different monthly reports of the BA, we use the data from the most recently available monthly report<sup>7</sup>.

### 5. Short-time work take-up is higher than ever

Current STW take-up rates are much higher than in earlier crises (Link and Sauer 2020). Already in the first weeks of the coronavirus pandemic, the number of short-time workers in March stood at 2.5 million, a significantly higher number than the previous peak in spring 2009, when just under 1.5 million people or 5.5 per cent of employees subject to compulsory social insurance worked short time. With 6 million short-time workers or 17.9 per cent of all those entitled to benefits<sup>8</sup>, the peak seems to have been reached in April (BA 2020e), since when the figures have been falling. However, they are still high and will probably remain above the pre-coronavirus pandemic level for a long time

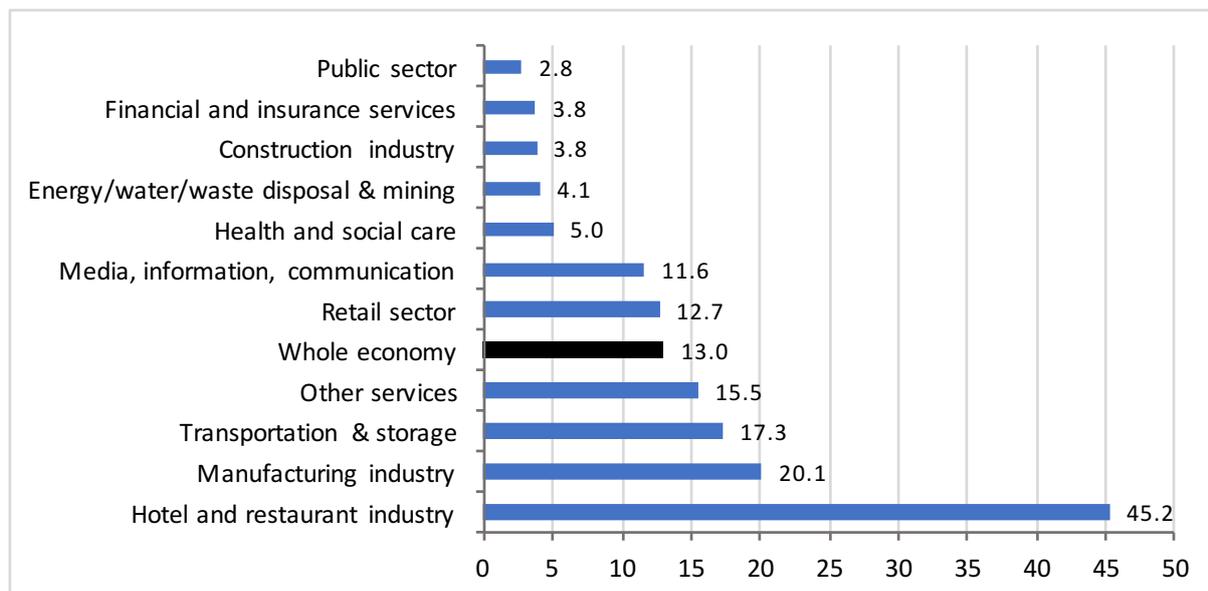
to come. An overview of the development of the share of STW as a percentage of eligible workers is given in Chart 1.

### 6. Working hours of short-time workers have halved

In the June wave of the HBS survey the course of regular working time for the months March to June 2020 and for the period before the start of the coronavirus crisis was surveyed retrospectively. For the short-time workers in June, a very pronounced decline in working hours in the months of April and May compared to the situation before the start of the pandemic was observed, with 54 per cent and 55 per cent respectively. This decline was greater for women (58 per cent in both months) than for men (51 per cent and 52 per cent respectively). In June, the gap between men (minus 49 per cent) and women (minus 54 per cent) remained at slightly lower levels. Compared to the reductions in working hours of STW, the average working hours of other employees subject to social

<sup>7</sup> The last report used is the October report; BA (2020d).

<sup>8</sup> Civil servants and mini-jobbers are not included, only employees subject to social security contributions.

**Chart 2. Short-time work rates by industry (per cent)**

Source: HBS survey, June 2020, own calculations

insurance contributions fell only slightly to 2.7 per cent compared to the pre-crisis level, with only minor differences between women and men (minus 3.2 per cent and 2.2 per cent respectively).

The averages for the development of working time conceal opposing trends. The 21 per cent of employees subject to social insurance contributions with significantly shorter working hours (including 13 per cent due to STW<sup>9</sup>) are contrasted by a good 14 per cent with longer working hours (48 per cent of whom are women, 52 per cent men)<sup>10</sup>. The coronavirus pandemic has demanded increased labour input from employees in some sectors of the economy, especially in the retail sector where 19 per cent of employees worked longer hours (while at the same time in this sector 17 per cent worked significantly shorter hours, 13 per cent of them on STW); in the public sector, 17 per cent of employees worked longer hours, while 9 per cent worked shorter hours (3 per cent of them on STW). With an increase in weekly working hours between the pre-coronavirus period and June 2020<sup>11</sup> of an average of 5.7 hours in the retail sector and 4.7 hours in the public sector, the working time

extensions for these employees (with a working time extension) were noticeable.

### 7. Who works short hours?

Whereas in earlier crises it was mainly the manufacturing industry that introduced STW, during the coronavirus pandemic large parts of the service sectors were also affected. During the economic and financial crisis of 2009, 76 per cent of all STW was carried out in the manufacturing sector, which is sensitive to economic cycles; in June 2020, however, this figure was only 31 per cent. The focus has clearly shifted to the service sectors because of the coronavirus-related distance and hygiene regulations. This also changes the composition of those working short-time. In the current crisis, women in particular are working shorter hours much more frequently than in past crises; at 13.2 per cent in June 2020, the rate was roughly the same as for men (12.8 per cent), while the rates in the same period in 2009 differed significantly at 2.3 per cent and 6.3 per cent<sup>12</sup>. The decisive factor here is that service sectors with a high proportion of female employees are currently reducing working

9 The BA data of Chart 1 are about as high.

10 Kleinert *et al.* (2020) report a slightly higher value.

11 If no other time reference points are given, the values always refer to the survey date June 2020.

12 The BA reports somewhat deviating figures for women (11.4%) and men (15.1%) in STW.

hours, especially the hotel and restaurant industry with a short-time work quota of 45 per cent<sup>13</sup> or the retail sector with just under 13 per cent (Chart 2). These two sectors were hardly or not at all affected by previous crisis slumps. In the hotel and restaurant industry STW was only of marginal importance in June 2009, with a rate of 0.15 per cent; in the manufacturing industry, on the other hand, it was 13.8 per cent, well above the overall rate of just under 4.6 per cent (BA 2020a; BA 2020b). For the manufacturing industry, this was also the case in mid-2020 with a rate of STW of a good 20 per cent compared to the average of 13 per cent, and in some sectors particularly affected by the crisis the rates are likely to be even higher.

For the first time, temporary agency workers are also entitled to benefits; 12 per cent benefit from this regulatory innovation<sup>14</sup>. Marginal workers (mini-jobbers), on the other hand, are not entitled to claim STW. It is therefore not surprising that, without the job-stabilising cushioning provided by STW in June, the number of marginal workers fell by 346,000 or 7.4 per cent to 4 million compared to the previous year (BA 2020c, 7). Overall, the pandemic and the changes in the regulatory framework in this context have greatly expanded the focus of STW.

The size of the companies making use of STW fits the structural picture of the industries. Micro-enterprises have the highest rate of STW at almost 17 per cent; the lowest share (11.1 per cent) can be found in large firms with 2,000 or more employees. Micro firms are particularly common in the hospitality industry and parts of the retail sector<sup>15</sup>. In areas where firms are on average very small, short-time work helps to avoid dismissals, which are probably more likely than in larger companies because of the lack of protection against dismissal<sup>16</sup>. Moreover, employees in micro-enterprises cannot hope for social plan benefits as in larger ones.

## 8. Short-time work and top-up benefits

STW (initially) secures the employment relationship of employees in the event of economic slumps, but the receipt of STW benefits means a loss of income (see regulatory framework)<sup>17</sup>. Especially in the lower income brackets, STW can lead to social hardship at an early stage, as financial reserves are rare here, often the savings rate is even negative (Späth and Schmid 2016) and therefore there is probably very little scope for further borrowing. The longer STW continues, the more necessary social transfer payments become. This makes it even more important to have collectively agreed, company and statutory regulations concerning the top-up of short-time work benefits. These regulations can cushion social hardship for almost half (46 per cent) of the STW<sup>18</sup>. The differences in the top-up rates between women (45 per cent) and men (47 per cent) are small. As the survey data used was collected at the end of June 2020, they already include a certain proportion of STW in the fourth reference month, which falls within the scope of the statutory top-up (the coronavirus lockdown and thus a stronger increase in short-time work began in mid-March).

If employees work in companies bound by collective agreements, the share of employees with supplementary benefits rises to 58 per cent, compared with only 34 per cent if there is no collective agreement<sup>19</sup>. In companies with a works councils or staff council (public sector equivalent to a works council), the rate of top-up payments for STW is above average at 60 per cent, while in companies without such works councils it is only 32 per cent. As the existence of staff representatives and the existence of a collective bargaining agreement do not necessarily coincide, the influence of company regulations relating to top-up schemes should not be underestimated.

13 This high figure should be seen in the light of the fact that it refers only to those employees who are eligible for social security contributions, i.e. it does not include the numerous mini-jobbers (marginal employees) in this sector.

14 Access to short-time allowance for temporary agency workers applies retroactively from 1 March 2020 and is initially limited until 31 December 2020.

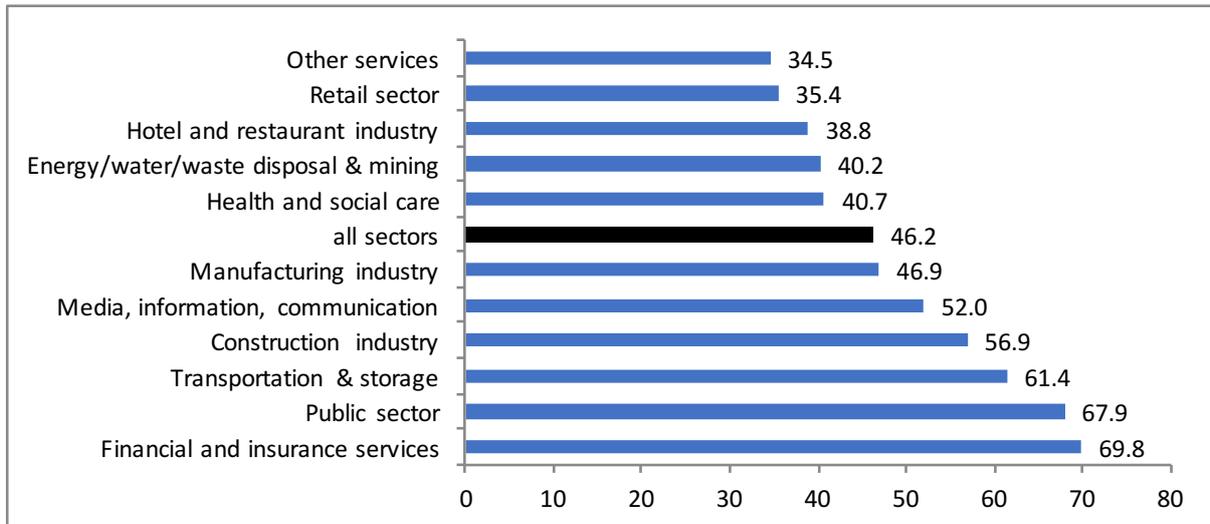
15 Those make up nearly half (48.5 per cent) of all persons employed in the hotel and restaurant industry and just over 20 per cent of all persons employed in commerce work in enterprises with less than 10 employees; see Statistisches Bundesamt (2020a).

16 The statutory protection against dismissal is only valid in companies with at least 10 employees.

17 Unless working hours are reduced to zero, income remains higher than in the alternative case of unemployment.

18 Almost half of the employees work in companies not bound by collective agreements; Ellguth and Kohaut (2020).

19 Previous publications sometimes mentioned slightly different quotas. The difference is due to the selection of employees: only employees subject to social insurance contributions and entitled to short-time work benefits were included in our evaluation.

**Chart 3. Rates of STW with top-up payments by sectors (per cent)**

Source: HBS survey, June 2020, own calculations

Sectors with greater collective bargaining coverage also tend to have higher rates of top-up STW pay (Chart 3). Somewhat surprisingly, top-up benefits are also available for 35 per cent of employees in sectors with a rather low coverage rate of collective agreements, such as the retail trade, even though a collective agreement has only been concluded for the state of North Rhine-Westphalia/NRW (Schulten and WSI-Tarifarchiv 2020). Here, the top-up rate differs very little between employees in companies with and without collective agreements. The comparatively high rate of top-ups in the retail sector is probably partly because the statutory regulation takes effect from the fourth month of STW compensation. However, it appears that company regulations have a much greater impact here, with the rate of top-ups in companies with a works council (around 50 per cent) being twice as high as in those without a works council (27 per cent). The situation is similar in the hotel and restaurant industry, where 39 per cent of employees receive top-up payments, although here too the rate in companies with a works council (58 per cent) is almost twice as high as in those without a works council (30 per cent).

The level of benefits in the event of a collectively agreed increase in STW allowance varies between

the collective bargaining areas and can amount to up to 100 per cent of the former net income (in NRW's retail sector for the first four weeks of STW; Schulten and WSI-Tarifarchiv 2020, 7 ff.). It should be noted, however, that top-up benefits are usually agreed for a limited period.

### 9. Income situation of short-time workers

In order to make statements on the income situation of short-time workers, needs-weighted household incomes were calculated according to the modified OECD scale (Hagenaars *et al.* 1994), which takes into account the different household sizes<sup>20</sup>. On this basis, the household incomes of short-time workers with top-up benefits are significantly higher than those without such benefits (Table 1). A positive influence is also likely to come from collective bargaining, since STW with top-up payments is more widespread in companies bound by collective agreements and collective earnings are on average higher than those without collective agreements (Lübker and Schulten 2019). A further influence could be different reductions in working hours for short-time workers with/without top-ups.

Lower incomes of women in STW compared to men are probably mainly due to varying sectoral distributions of women and men in STW as well

<sup>20</sup> Adult heads of households receive the weight 1, every other person aged 14 and over the weight 0.5 and children under 14 the weight 0.3. For the income values, the income classes given in the survey were converted to the value of the middle of the class in each case; this was only possible for the closed income classes up to € 6,000 per month, which, however, account for 97.4 per cent of the observations with income information.

**Table 1. Needs-adjusted household income of short-time workers with/without top-up Euros**

	Men	Women	Total
All short-time workers	2,043	1,855	1,956
Short-time workers, without top-up	2,024	1,802	1,917
Short-time workers, with top-up	2,108	1,970	2,049

Source: HBS survey, June 2020, own calculations

as different earnings of women and men working alone (in dual-earner households both incomes are considered together, differences between genders level out).

**10. Loss of income due to short-time work**

The level of income of short-time workers depends on several factors. In addition to the extent of STW and additional benefits, the qualification, the collective agreement, and the starting salary play a major role. For this reason, the different income levels of short-time workers and non-short-time workers may also be due to numerous other characteristics that distinguish the employee groups. If relative income losses are considered instead of the absolute level of income, structural factors such as collective bargaining, industry, part-time work, etc. should take a back seat as determining influences of income loss, since the level of income loss of short-time workers is mainly due to the STW itself and the

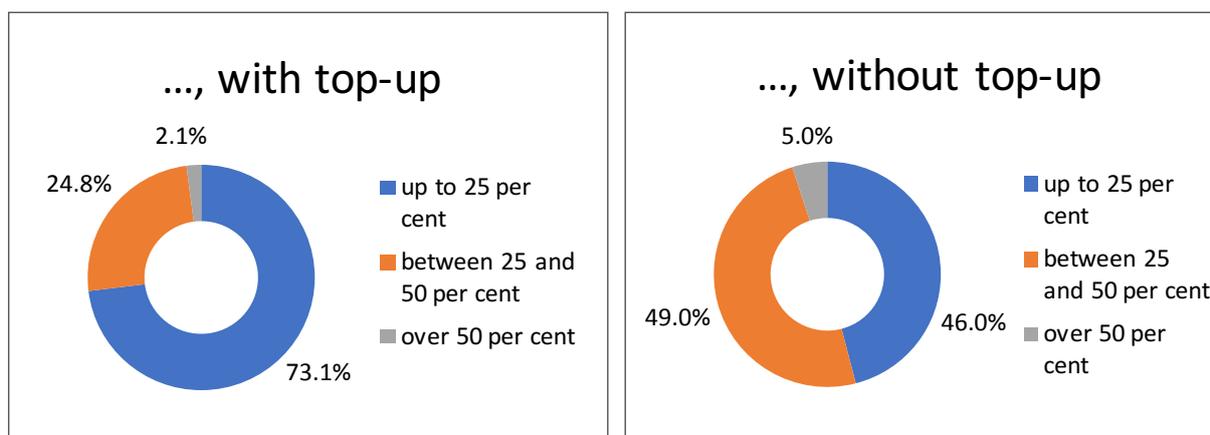
existence of supplementary benefits. In Figure 1 we therefore document the relative income losses of short-time workers. The proportions of income losses from STW with and without top-up indicate a much greater impact of top-up compared to the absolute values (Table 1)<sup>21</sup>.

**11. Short-time work and further training**

The labour market policy approach of using phases of STW for further training is not new. It was introduced during reunification in the early 1990ies. This approach was taken up again in the financial crisis of 2008/09 (Crimmann and Wießner 2009).

One argument in favour of combining STW benefits with on-the-job training is that companies and employees have time at their disposal, unlike during busy times. However, it is only possible to foresee to a limited extent how long and to what extent the phases of STW will last. In this respect, only shorter training courses are more likely to be offered, which

**Figure 1. Income losses of short-time workers (household income)**



Source: HBS survey, June 2020, own calculations

21 High income losses above 50% are likely to be due to the maximum amount of the short-time work allowance and the wider household context (e.g. loss of further income).

can, however, be continued if they are modular in structure. In this way, companies and employees can prepare themselves for the structural change underway in many areas (digitisation, decarbonisation etc.), companies can also retain skilled workers and strengthen their competitiveness. However, it is always uncertain for companies to what extent investments will pay off (Bellmann *et al.* 2014). Should companies have to reduce their workforce due to the crisis, further training could be advantageous if it strengthens mobility and thus saves companies incurring redundancy costs.

Comparisons with earlier economic crises can only be made to a limited extent, not only because there are no corresponding findings. In contrast to phases of economic weakness, coronavirus-related distance and hygiene requirements make it difficult to carry out further training in the context of face-to-face events. Alternative forms of learning such as e-learning are not yet widely available, and they are likely to be rather unsuitable for people with less educational experience (Janssen *et al.* 2018). Moreover, in the case of employees on STW and with greatly reduced working hours, absence from the workplace means that the company is no longer a learning location. Although not all the limitations mentioned apply specifically to STW, the clear differences in further training participation between employees with STW (9.6 per cent)<sup>22</sup> and those without (18 per cent) are surprising. Women with STW (10.4 per cent) participate in further training slightly more frequently than men (8.8 per cent); for employees without STW the gender distribution is the other way round: men 19.5 per cent, women 16.3 per cent<sup>23</sup>.

An additional regression with recourse to explanatory factors from human capital theory confirms that, even taking into account individual and company characteristics, short-time workers have participated less in further training measures in the course of the pandemic to date than employees without STW (see Appendix). There is therefore still potential for an expansion of further training activities, although this is likely to be difficult for crisis-ridden companies to manage on their own.

How far the opportunities to financially promote further training provided by the Qualification Opportunities Act (Qualifizierungschancengesetz) and the Work of Tomorrow Act (Arbeit-für-morgen-Gesetz) (BMAS 2020) are actually used is still unclear.

### Conclusion

During the coronavirus pandemic, STW compensation (initially) not only secures threatened employment to a hitherto unknown extent. Compared to the financial crisis of 2008/2009, the focus of STW has also shifted significantly. It is no longer primarily manufacturing companies that use this instrument, but rather the service sectors that are primarily affected by the coronavirus protection measures. With the new priorities, the composition of personnel is also changing. The proportion of women working short time is largely the same as for men. For the first time, temporary workers also benefit from the employment protection instrument. And STW also offers a protective shield for employees in micro-enterprises who are less protected from job losses.

Since the STW allowance can only partially compensate for the reduction in income, collectively agreed/company benefits and the statutory increase from the fourth month of STW allowance have an important social role to play. For almost half (46 per cent) of the short-time workers these measures can reduce the loss of income and cushion social hardship. However, since a large proportion of short-time workers only receive the statutory short-time allowance, mainly due to the lack of collective bargaining agreements, and since some of the collective bargaining agreements may expire soon, the statutory increase in short-time allowance becomes all the more urgent as the duration of short-time work increases.

The link between STW and further training is weak and reveals limited utilisation of the offers. It is unclear why only relatively few short-time workers use the lost working time for qualification measures. Further research is needed.

22 A different survey reports that only 5 per cent of short-time workers participate in further training activities Kruppe and Osiander (2020).

23 Comparisons with other CET surveys, above all the Adult Education Survey, are only possible with reservations due to the different questions asked (Bilger *et al.* 2017).

## Appendix

### *Further training for short-time workers compared to employees without short-time working*

The question of participation in professional training can basically be dealt with by referring to the human capital theory, according to which employers and employees are prepared to invest in human capital if net returns are positive (Becker 1964). In addition to socio-demographic factors, the probable further duration of employment plays a role, which can be significant, for example, in the case of older employees and in the case of fixed-term contracts or temporary work (Bellmann *et al.* 2013). In a deep economic crisis, companies may also lack the resources to provide professional training. Moreover, professional training courses with compulsory attendance for short-time workers are probably also more difficult in the coronavirus crisis, which can lead to a further curbing of professional training participation. For short-time workers, therefore, there could be generally less participation in professional training during the pandemic.

In order to investigate the connection between the factors mentioned and further training activity, a probit regression analysis was carried out using the data from the HBS survey (Table A1). In addition to socio-demographic information, characteristics of the educational level or qualification of employment in the company, information on the form of employment, the sector and industrial relations are included. The intensity of STW is calculated for those employees who indicated STW in the April and/or June surveys as the ratio of the actual working time in the months of March to June to the actual working time before the start of the coronavirus crisis. The results in detail:

1. After checking all other factors (see the following points), a strong negative correlation remains

between the STW rate and participation in further training.

2. Among the socio-demographic factors, age plays a role, which initially has an increasing (positive linear correlation) and finally a decreasing (negative quadratic term for age) effect on the probability of participation in further training. For women, employees with children up to 14 years of age and employees with a migration background, on the other hand, there is no significantly lower probability of participation in further training to be noted.
3. The type of employment contract is a contributing factor: meaning that part-time and temporary agency workers are less likely to participate in further training.
4. There does not seem to be a stronger correlation between the levels of qualification measured by vocational qualifications and further training activity. There are, however, larger and statistically significant deviations in further training participation, especially among higher qualified employees and employees with management responsibilities.
5. Positive deviations in further training participation from the reference sector of the manufacturing industry are particularly evident in the energy and mining, communications, finance, health and social services sectors, while there were fewer further training activities in the construction industry.
6. There are also more further training activities in companies with works councils, while the results of the regression show that there seems to be no connection with collective bargaining.

**Table A1. Explanatory factors for further training participation (probit regression)**

	dy	SE	z	P> z
Work time loss (%)	-0.13	0.04	-3.53	0.00
Age	0.01	0.00	1.81	0.07
Age2	0.00	0.00	-2.28	0.02
Women	0.00	0.01	-0.19	0.85
Child up to 14	0.00	0.02	-0.17	0.86
Migration background	0.00	0.02	-0.20	0.84
Part-time	-0.06	0.02	-3.29	0.00
Limited contract	0.01	0.01	1.00	0.32
Temporary agency work	-0.19	0.11	-1.81	0.07
Vocational training	-0.02	0.02	-1.47	0.14
<i>Educational degrees:</i>				
Master (craftsmen)	-0.02	0.03	-0.82	0.41
Technical school	-0.01	0.02	-0.44	0.66
BA	-0.02	0.02	-0.86	0.39
MA	0.02	0.02	1.01	0.31
PHD	0.08	0.05	1.76	0.08
<i>Skill levels:</i>				
Unskilled/semi-skilled worker	0.02	0.11	0.19	0.85
Skilled worker	0.08	0.11	0.75	0.45
Foreman	0.01	0.13	0.05	0.96
<i>Task levels:</i>				
Simple work tasks	0.12	0.11	1.12	0.26
Qualified employee	0.18	0.11	1.65	0.10
Highly qualified employee	0.23	0.11	2.13	0.03
Manager/executive	0.27	0.11	2.43	0.02
<i>Sectors:</i>				
Agriculture	0.02	0.14	0.16	0.87
Public service	-0.05	0.02	-1.85	0.06
Energy, mining	0.08	0.03	2.49	0.01
Manufacturing industry	-0.02	0.02	-1.09	0.27
Construction industry	-0.11	0.05	-2.26	0.02
Retail	-0.01	0.03	-0.20	0.84
Transportation	-0.01	0.03	-0.21	0.84
Hotel/restaurant industry	-0.04	0.03	-1.18	0.24
Communication	0.09	0.03	2.71	0.01
Finance	0.12	0.03	3.89	0.00
Housing sector	-0.06	0.07	-0.87	0.39
Health and social care	0.04	0.02	1.87	0.06
<i>Industrial relations:</i>				
Works council	0.08	0.02	5.04	0.00
Collective agreements	-0.01	0.02	-0.37	0.71

Source: HBS survey, June 2020, own calculations for employees subject to social insurance contributions

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