



Welfare benefit recipients in Germany: Unemployment dynamics during the Covid-19 pandemic

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Abstract

The Covid-19 pandemic has been challenging social security systems such as the German welfare benefit system labeled as Unemployment Benefit II (UBII). The article analyses the UBII entries and exits of unemployed people by individual characteristics and economic sectors as well as their participation in active labour market programmes during the Corona crisis. Using aggregate administrative data, we find that lower exit rates from unemployment drive the Corona-related change in unemployment for UBII recipients more strongly than for the average unemployed. Underlining the importance of education, those most strongly affected in their employment opportunities are UBII recipients without a vocational degree. Furthermore, the sectors accommodation & food service and temporary work agencies, which normally provide employment opportunities for welfare recipients, are the most affected by the Corona crisis.

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1. Introduction

The Covid-19 pandemic has hit the world hard. Businesses going bankrupt, unemployment and increased poverty are some of the consequences of the pandemic and the social distancing measures to contain it. Research on this crisis has already shown that in particular parents, young people, women, migrants, non-remote workers and precarious workers are overproportionally affected in terms of employment and earnings (Adams-Prassl et al. 2020; Eurofound 2020; Fana et al. 2020). Researchers have however not yet said much about welfare benefit recipients, a per se vulnerable group across national contexts.

People on Unemployment Benefit II (UBII), Germany's welfare benefit, receive means-tested, household-based benefits. Before the pandemic, when the labour market was far more prosperous, welfare recipients were already vulnerable. They benefitted substantially less from the prosperous economic development than other groups, as the decrease of UBII unemployment was smaller than that of overall unemployment (decrease of 23% vs. 30% between 2010 and 2019, DataWareHouse of the Department for Statistics of the Federal Employment Agency, FEA). It is well documented that receiving UBII is a marker for poverty and deprivation (Bäcker/Neubauer 2018; Christoph 2016). Moreover, the longer the period on welfare, the greater the negative consequences of deprivation and unemployment, including diminished health, well-being and employment opportunities, as well as feeling socially excluded (Popp/Schels 2008). (Re)integration into the labour market has also been particularly difficult for some others: the less educated, foreigners, mothers and older welfare recipients (Achatz/Trappmann 2011; Beste/Trappmann 2016).

Due to the economic recession the pandemic has originated, fewer job vacancies are available (Weber 2020). However, it is unclear from a theoretical perspective if this will lead to longer unemployment durations for unemployed welfare recipients. According to job search theory (Mortensen 1986), the arrival rate of job offers may be low in economic downturns leading to slower exits from unemployment to employment. However, individuals might also decrease their reservation wage in response, which might cushion the effect of the arrival rate of job offers. Furthermore, according to the dual labour market theory, unemployed welfare recipients belong to the 'outsiders' as opposed to 'insiders' comprising the core work force with full-time and permanent jobs (Emmenegger et al. 2012). Thus, only some economic sectors are (normally) accessible for welfare recipients, e.g. business services and temporary agency employment (Bruckmeier/Hohmeyer 2018); but these have been directly

affected by social distancing measures. These sectors are often characterised by short employment durations (Dengler et al. 2021), leading to job losses during recessions. Then, the great majority of welfare recipients faces additional barriers to (re)integrating into the labour market, with those who already were more vulnerable before the pandemic probably confronting even higher hurdles to (re)integration. In particular, disadvantaged individuals may signal low productivity to potential employers leading to lower employment chances. Furthermore, employers could even discriminate against disadvantaged individuals.

Furthermore, the social distancing measures have also affected the access to unemployment benefits and the practical application of active labour market policies (ALMP). First, the conditions for entitlement to UBII have been temporarily relaxed; therefore, more people may have newly entered UBII. Second, the job centres' main task is to deliver ALMP with the objective of moving people (back) to the labour market through counselling and activation tools. Since these had to be suspended or were available only remotely after the pandemic started, in particular missing counselling and supportive measures might have a further negative impact on the labour market integration chances of welfare recipients.

In this paper, we shed light upon the impact of the Covid-19 pandemic on unemployed welfare recipients in Germany. Using monthly aggregate data from the Department for Statistics of the FEA, we descriptively analyse how welfare recipients' aggregate fluctuation into UBII unemployment and from it has changed during the first months of the pandemic. In a similar manner to Böhme et al. (2020), we identify a 'Corona related change' (CRC) during the Covid-19 pandemic. First, we study the CRC of heterogeneous subgroups of unemployed welfare recipients, with the question as to whether people in a more vulnerable start point have experienced worse CRCs. Second, we analyse the CRC by economic sectors. Third, as we know the participation in ALMP programmes has fallen due to social distancing measures, we analyse differences in programme inflow rates among subgroups. We analyse the delineated developments from four theoretical perspectives: job-search theory, signalling theory, statistical discrimination and segmented labour-market theory. Finally, we discuss the new challenges that have arisen for the different UBII subgroups and the welfare system.

2. Covid-19 pandemic in Germany

Since the beginning of 2020, Covid-19 has been prevalent all over the world. To slow down the spread of Covid-19, which is transmitted primarily via droplet infection (BAuA 2020), a shutdown with extensive restrictions in private and public life was implemented in Germany

in March 2020 (see Figure 1), as in many other countries. A ban on social contact was implemented; day-care centres, schools, shops (with the exception of grocery shops and drug-stores) and restaurants were closed as well as service businesses in the personal care sector such as hairdressers, cosmetic studios, massage practices, tattoo studios and similar businesses (The Press and Information Office 2020). Starting in late spring, Germany gradually eased the pandemic containment measures, with regional governments being responsible to do so according to local infection rates and other priorities defined regionally.

As a major consequence of the pandemic and the social distancing measures, almost all areas of the economy and thus the labour market came under heavy pressure. Companies could use short-time work allowance, where the FEA pays the worker a wage replacement for the lost working hours, to keep their employees and so be able to immediately start production once the economy starts to recover. An easier and prolonged access to short-time allowance was introduced due to the pandemic (see Figure 1; Federal Ministry of Finance 2020), resulting in around 10.1 million employees in short-time work in Germany in March and April 2020 (Gehrke/Weber 2020).

Even so, unemployment increased and challenged the social security system. Sectors in particular affected by the social distancing measures such as hospitality and the temporary-work sector experienced an immense increase in unemployment (Gehrke/Weber 2020). While dismissal could be largely cushioned, new hires declined sharply (Weber 2020).

Furthermore, the economic consequences of the Covid-19 pandemic also vary across different groups of individuals. The pandemic has often disproportionately affected those individuals who were disadvantaged or in unfavourable positions in the labour market already before Covid-19 (Adams-Prassl et al. 2020; Beland et al. 2020; Fana et al. 2020; Pouliakas/Branka 2020). In Germany, individuals with migration background, low-wages, minor employment, fixed-term employment or temporary agency employment are significantly more affected than the average (Hövermann/Kohlrausch 2020). The same applies for occupations from the lower income segment, such as occupations in the hotel or catering industry, than better-paid occupational groups (Buch et al. 2021). Thus, the Covid-19 pandemic may further increase social inequality. So far, no evidence for welfare recipients – a per se disadvantaged group – is available.

Figure 1 about here

3. German welfare benefit system

3.1 Institutional Setting

Germany provides a two-tier safety net for job seekers and their households (Eichhorst et al. 2010). Earnings-based unemployment insurance benefit (Unemployment Benefit I – UBI) is available for unemployed individuals who paid contributions to the UBI system. Entitlement to UBI is limited to up to 1 year (2 years) if aged younger (older) than 50 years. The UBI system is likely the main safety net for individuals becoming (newly) unemployed during the crisis.

In contrast, UBII provides a second-tier safety net for households in economic need. Individuals who can work at least three hours per day receive means-tested UBII if their household income is not sufficient to achieve a minimum standard of living. Thus, unemployed individuals, UBI recipients, employed individuals and individuals who are not available for employment (e.g. because of caring for children or the elderly or participating in education or in ALMP programmes) can receive UBII. In this paper, we focus on unemployed UBII recipients.

With a major Social Protection Package implemented at the beginning of the pandemic (see Figure 1), the conditions for entitlement to UBII were relaxed. Mainly, this implied that the means test that was previously mandatory to enter UBII was temporarily suspended and the application process to (further) receive UBII altogether was simplified. This measure might have particularly facilitated access for self-employed persons, as they are usually not granted UBI (Federal Ministry of Labour and Social Affairs 2020). In addition, since many employees received short-time worker's allowance, those in precarious jobs might have received UBII on top if the allowance did not provide enough income to live on.

Further far-reaching social distancing measures concerned the delivery of ALMP (see Figure 1; Federal Employment Agency 2020). Since March 2020, job centres have been predominantly closed, limiting counselling to telephonic communication. Due to the abrupt closure of job centres, sanctions were suspended from April to June 2020. Participation in the majority of ALMP programmes was only possible online from March to end May 2020. Since then, job centres and regional governments have been responsible for deciding whether they offer a programme on-site, with the default being online only. Some programmes, such as One-Euro-Jobs (OEJs), cannot take place online, however.

3.2 Labour market situation of UBII recipients before the crisis

In particular, the Covid-19 pandemic may increase the challenges for disadvantaged welfare recipients. Before the crisis, long-term benefit receipt, health restrictions, lack of school or vocational qualifications, migration background or low German language skills, an older age or caring for children or other relatives reduces the chances of leaving welfare receipt and finding a job (Achatz/Trappmann 2011; Beste/Trappmann 2016). In fact, the great majority of UBII recipients possesses one or more of these so-called ‘employment impediments’. Therefore, their employment chances might have particularly worsened during it. In particular, previous research (see Section 2) on the economic consequences of the Covid-19 pandemic already suggests that the pandemic will worsen the labour market chances of those individuals who were in disadvantaged positions in the labour market before Covid-19.

To provide the reader with an overview on how the group fluctuation was before the pandemic, Table 1 shows the average UBII entry and exit rates of 2019 by group of unemployed recipients. Women’s entry and exit rate was considerable lower than men’s rates. The entry rate of those older than 54 years was about one-fifth the entry rate of young adults under 25. In line, the exit rate of the former was less than one-fourth the exit rate of the latter, with younger people being among those with relatively high exit rates. Another group with even higher exit rates was the one consisting of foreigners. The group with both the highest entry and exit rate was that of people without a vocational degree, with almost five times the average overall rates. Despite these considerable differences across groups, over all groups, the exit rates were slightly higher than the entry rates, which hints to a slight decrease of the UBII unemployment stock before the pandemic.

Table 1 about here

Furthermore, the German labour market is segregated, with some economic sectors being more accessible for welfare recipients than others. Table 2 displays the main economic sectors for contributory jobs taken up by unemployed welfare recipients in 2019. The three main sectors are wholesale & retail trade, repair of motor vehicles & motor cycles, temporary agency employment and other economic services (without temporary agency employment). Together, these three sectors account for more than half of the employment entries of unemployed welfare recipients. In particular, temporary agency employment and other economic services offer more often employment perspectives to unemployed welfare recipients than for unemployed in general (Department for Statistics of the Federal Employment Agency

2020a). The fourth-largest economic sector for welfare recipients in terms of entries is accommodation & food service activities (9%).

Table 2 about here

The distribution over economic sectors differs for different groups of welfare recipients (Table 2). Access to the three largest sectors just mentioned is particularly high for young welfare recipients (with a share of 62%) and lower for single parents, severely disabled persons and older persons (with a share of 44%-47%). For women and older people, human health & social work activities are among the most relevant economic sectors (14-22%). Foreigners in contrast take a job up more often in accommodation & food service activities (12%).

For welfare recipients with especially low employment chances, enabling ALMP programmes may serve as alternatives. During ALMP participation, they can increase their employability and qualifications. Scant assignment into such programmes may further deteriorate the employment perspectives of unemployed UBII recipients, as they lack opportunities to reverse their human capital depreciation. This might be particularly problematic for specific subgroups, such as women or the long-term unemployed, for which the ALMP evaluation literature attested above-average beneficial employment impacts of programme participation (see Card et al. 2018; Heyer et al. 2012). Further, programme types differ in their effectiveness, with e.g. wage subsidies and in-firm training showing particularly beneficial employment effects. In contrast, public sector employment programmes such as the German OEJs rather have detrimental effects (Card et al. 2010, 2018; Heyer et al. 2012; Kluve 2010). These programmes often are used to test welfare recipients' willingness and capacity to work (Hohmeyer/Wolff 2018), highlighting certain programmes' demanding aspect. Thus, missing opportunities due to a reduced ALMP assignment might vary across groups and programme types.

Table 3 about here

Table 3 presents the group inflow rates into different ALMP programme types in 2019. Overall, men (women) had slightly higher (lower) inflow rates than the average with 9.8 (7.8) inflows per 1,000 unemployed welfare recipients. Pre-pandemic inflow rates varied more substantially by age: UBII recipients aged younger than 25 years had more than doubled inflow rates while older ones less often participate in ALMP programmes (5.4 inflows per 1,000 unemployed welfare recipients).

With respect to ALMP programme, classroom training and OEJs had above-average inflow rates in 2019 (41.6 and 10.0 inflows per 1,000 unemployed welfare recipients). Within the

different ALMP programmes, the group differences follow the same pattern already described (yet at different levels). The only exception are OEJs with lower inflow rates among young welfare recipients.

4. Theoretical Considerations

We apply different theoretical approaches to discuss the entries from employment into unemployment and the exits from unemployment to employment for welfare recipients in general as well as for certain groups of welfare recipients and economic sectors during the crisis. According to job search theory, the unemployment duration is affected by the individual reservation wage and the arrival rate of job offers (Mortensen 1986). Individuals choose a reservation wage, i.e. the lowest wage at which they are willing to accept a job. The arrival rate of job offers, i.e. the probability of receiving a job offer, is a further important determinant of job search. The reservation wage and the arrival rate depend both on the economic situation as well as on the group of individuals. In a severe economic situation, fewer vacancies are available. Thus, the arrival rate of job offers may be low in an economic downturn leading to slower exits from unemployment to employment. However, individuals might also decrease their reservation wage in response, which might cushion the effect of the arrival rate of job offers. Disadvantaged people such as individuals without education, with migration background or with health restrictions may have a lower reservation wage too, implying faster exits to employment. However, the arrival rate of job offers may be lower for disadvantaged individuals than for other individuals, leading to slower exits to employment. Thus, how the crisis affects transition is ambiguous from job search theory. It depends on whether the effect on the reservation wage or on the arrival rate predominates.

According to signalling theory, employers face uncertainty in the hiring process as they cannot observe the applicants' productivity levels (Spence 1973). They thus use applicants' educational qualifications or certificates and individual characteristics as indicators of their productivity. Interruptions such as unemployment experience have negative effects on employment because they serve as signals of low productivity to potential employers. Moreover, human capital decreases during unemployment (Becker 1994), which potential employers are likely to anticipate. During economic crises, this signalling effect could be weaker since more persons with good labour market chances might enter UBII and employers incorporate this in their hiring decisions. However, employers face more uncertainty in their

hiring decisions due to the social distancing measures, as they have less information on the pools' composition and can use internships or ALMP programmes less often as 'on-the-job screening' (Solga 2002).

In a similar way, the concept of statistical discrimination (Arrow 1973; Phelps 1972) is also based on the assumption that employers have a priori only incomplete information about the productivity of individuals and use information on the average productivity levels of the group to which the applicant belongs. They would respectively ascribe this average productivity level to each applicant and then rather hire those who belong to the group thought to be more productive. Thus, already disadvantaged individuals may be discriminated by employers leading to lower employment probabilities.

In line with these theoretical considerations, already disadvantaged groups might further struggle due to Covid-19 as job openings decline and the composition of benefit recipients' stock possibly changes. Persons with good labour market prospects and high chances of leaving UBII quickly and without much support by the job centres might (newly) enter UBII receipt. Such a composition change may also shuffle the queue of job searchers, with disadvantaged individuals such as those with a lower education facing decreasing arrival rates of job offers and thus decreasing employment prospects.

Furthermore, according to the concept of labour market segmentation, the labour market is divided into a number of sub-markets with certain job or workers' characteristics, implying limited mobility between sub-markets as well as different employment risks and opportunities (Sengenberger 1987). In particular, one possible division is the dual labour market with insiders comprising the core workforce with full-time and permanent jobs and outsiders such as unemployed or atypical employed individuals (Emmenegger et al. 2012). Accordingly, unemployed welfare recipients, in particular disadvantaged individuals, may face higher unemployment risks and lower re-employment chances during crises. Some sectors are more accessible for welfare recipients (e.g. retail, other business services, temporary agency employment, as indicated by Bruckmeier/Hohmeyer 2018). However, these sectors are often characterised by short employment durations (Dengler et al. 2021). During recessions, this could lead to job losses in these sectors in particular. Furthermore, it could hit disadvantaged individuals such as younger individuals harder.

5. Data and method

We use monthly aggregate administrative data provided by the Department for Statistics of the German FEA on contributory employment,¹ entries from contributory employment into unemployment and benefit receipt, and exits from unemployment and benefit receipt into contributory employment. Furthermore, we use data on entries into ALMP programmes.² To assess the consequences of the pandemic and the policy measures taken on the German labour market, we calculate the Corona-related change (CRC) in a similar manner to Böhme et al. (2020) and Buch et al. (2021).³ We define the CRC as:

$$[(\text{inflow rate}_{2020} - \text{inflow rate}_{2019}) - (\text{exit rate}_{2020} - \text{exit rate}_{2019})] * 1000$$

The inflow (exit) rate is defined as the inflow from employment into unemployment (exit from unemployment into employment) divided by the stock of employed people in March in the respective year. To account for differences in size of economic sectors and groups, we divided the rates by the stock of contributory employment and multiplied it by 1000. By calculating the difference, the CRC captures changes in inflow into and exit from unemployment due to changes in the economic situation. To calculate the change in UBII unemployment, we calculate the CRC for those who enter or exit unemployment associated with UBII receipt. A positive CRC indicates a less favourable development in 2020 than in 2019 with higher CRC values indicating stronger corona-related changes.

This interpretation of CRC is based on the assumption that, without the crisis, transitions into and out of unemployment and benefit receipt would have been the same as in 2019. We are aware that the CRC does not represent a causal effect of the Covid-19 pandemic in the narrow sense. Nevertheless, we argue that the changes in the unemployment situation between 2019 and 2020 were mainly driven by the Covid-19 pandemic and the corresponding policy measures to fight the pandemic. For the effect on ALMP programme participation, we do not calculate a CRC but use the changes in inflow rates into ALMP programmes

¹ Contributory employment is dependent employment that is subject to social security contributions with monthly earnings >450€. We only consider contributory employment in this article.

² We received data from the Department for Statistics of the FEA under the request numbers 309128 and 309182. We further used information from the DataWareHouse (DWH) provided by the Department for Statistics of the FEA. To this information belong: (1) the respective entries and exits of the different personal groups in August 2020, and (2) the monthly stock of unemployed UBII recipients in 2019 and 2020.

³ In contrast, Buch et al. (2021) only consider inflow rates into employment, while Böhme et al. (2020) use the labour force as denominator for their corona effect on unemployment. Furthermore, the Department for Statistics of the Federal Employment Agency (2020b) reports a Corona effect on the number of persons receiving short-time worker allowance and on self-employed entering the benefit system.

between 2019 and 2020. The denominator here is the stock of unemployed UBII recipients in the previous month.

6. Results

6.1 Overall results

Figure 2 displays the change in the inflow and exit rates and the CRC by month for the unemployed in general (i.e. both UBI and UBII recipients). It shows that higher inflow rates as well as lower exit rates in 2020 compared to 2019 contribute to the CRC in April and May. The CRC is highest in April, where it amounts to five additional individuals registered unemployed per 1,000 individuals employed. Only 3.5 unemployed per 1,000 individuals employed found a job in April 2020 instead of 5.8 in April 2019, while 8.1 individuals per 1,000 individuals employed entered unemployed instead of 5.3 in April 2019.

From June on, the CRC becomes smaller, as the social distancing measures that reduced economic activity were relaxed. The CRC turning negative in August 2020 hints to a slight labour market recovery.

Figure 2 about here

Figure 3 shows the corresponding numbers for unemployed UBII recipients. Here, the picture is somewhat different: The overall CRC is smaller (i.e. it is less than one additional unemployed UBII recipient per 1,000 individuals in contributory employment). However, the CRC lasts longer: from April to August 2020. Other than for all unemployed individuals, the CRC for UBII recipients is mainly driven by lower exit rates, i.e. fewer unemployed UBII recipients finding a job. The fact that the CRC is smaller and that the increasing inflow into unemployment has lower importance underlines that UBI is the main safety net for those becoming unemployed in the crisis. The persisting lower exit rates among UBII recipients indicate that they need more time to recover from the crisis after the policy measures that reduce economic activities were partly taken back.

Figure 3 about here

6.2 Entries into and exits from UBII unemployment by individual characteristics

Figure 4 shows the aggregated CRC from April to August for specific groups of unemployed welfare recipients. We display women's CRC as opposed to men's CRC. Further, we show the age groups under 25 years of age and age 55 or older, as well as the groups of foreigners

and people without any vocational degree. For these last groups, we use the average CRC as comparison.

Figure 4 about here

We first observe that men's CRC is slightly higher than that of women by roughly 1.0 of 1,000, with men's CRC being higher than the average CRC and women's CRC being marginally under it. Such disparity is not due to an entry-rate difference to 2019, which is almost zero for both men and women, but due to differences in the exit rate from UBII. While both men and women have lower exit rates than they did in 2019, men's exit rate decreases somewhat more sharply. It thus appears the worsened economic situation has affected men's employment opportunities harder. However, women's exit rate from UBII was lower than men's exit rate before Covid-19 (see Table 1).

Figure 4 shows also CRCs for older and younger individuals. Those unemployed UBII recipients who are younger than 25 years old show a CRC that does not deviate from the average. As for welfare recipients older than 54 years, the CRC is below average. Reasons for their lower CRC could be that they on average have longer job tenure and better protected jobs. If they become unemployed however, they are more like to receive unemployment insurance benefits first and not UBII. Their comparatively low exit rate before the pandemic has then not changed as much after the Covid-19 outbreak.

The CRC is higher for foreigners than for the groups mentioned and is highest for those without a vocational training. The CRC is about 8.1 more individuals per 1,000 individuals for the former and striking 11.4 more per 1,000 for the latter. Again, the CRC for both is mainly related to a lower exit rate from UBII compared to 2019. Remarkable is, furthermore, that the difference in the exit rate is considerably higher for these groups than for the average: roughly three times the overall difference for foreigners and almost five times the overall difference for people without vocational training. As these two groups were the ones with the highest exit rates from UBII in 2019 (Table 1), their dramatic drop in exit rates during the first months of the pandemic might partially be due to an overall stop in hiring. Even so, it is alarming that the employment perspectives of foreigners and in particular lower educated people have been affected that much. Considering the findings of Achatz and Trappmann (2011) and Beste and Trappmann (2016) that these groups particularly face barriers to finding a job, it is likely that missing opportunities during the pandemic might further deteriorate their employment perspectives.

6.3 Entries into and exits from UBII unemployment by economic sectors

This section describes how the entries and exits from and into UBII unemployment have developed in the different economic sectors. It considers how far sectors that typically offer employment prospects to UBII recipients are affected by the crisis. Table 4 shows the CRC on employment transitions of unemployed UBII recipients by economic sectors. Mainly affected by the Covid-19 pandemic is employment for UBII recipients in temporary work agencies (approximately 19.4 more unemployed UBII recipients per 1,000 contributory employees) and accommodation & food service activities (approximately 13.9 more per 1,000). This result is not surprising because the accommodation & food service sector was largely closed during the shutdown (see section 2). The temporary work sector is characterised by flexible employment and low employment protection by which employees are likely to be the first to lose their jobs in an economic downturn. These two sectors are among those most commonly offering employment opportunities for UBII recipients (see section 3.2). This result underlines that UBII recipients are strongly affected by the pandemic in their employment opportunities.

Table 4 about here

As previously seen in section 6.2, foreigners and those without a vocational degree are affected more strongly than others by the crisis. This could be to some extent driven by the fact that these groups work in distinct economic sectors that are most affected by the crisis. Table 5 shows the CRC by economic sector and by subgroup. It shows that sectoral differences cannot fully explain the differences between the groups: also controlling for the sector of employment, foreigners and individuals without a vocational degree are more strongly affected by the pandemic. These two groups show higher CRCs in all economic sectors than the average. Women and older individuals in contrast show somewhat weaker CRCs in all economic sectors. For people younger than 25 years, the relative strength of the CRC depends on the economic sector. It is slightly stronger for wholesale & retail trade, repair of motor vehicles & motor cycles, but weaker for several other sectors such as temporary work agency employment.. However, for foreigners and individuals without vocational degree, the sectoral composition cannot fully explain why they are more affected. The explanation should lie somewhere else – e.g. in the particular tasks or jobs fulfilled or in the type of contracts.

Table 5 about here

6.4 ALMP programmes before and during the crisis

The higher unemployment levels in 2020 (see section 2) may not only be driven by fewer people taking up a job during the Covid-19 pandemic, but also by fewer participating in ALMP programmes (as participation officially ends a person's registration as unemployed). Compared to 2019, the ALMP programme inflow rates on average decreased by -4.5 inflows per 1,000 unemployed UBII recipients between April and August (Table 6, Panel A). This decrease is rather substantial as on average 8.9 programme inflows per 1,000 unemployed UBII recipients took place in 2019 (see Table 3 in section 3.2). The sharpest drop in programme inflow rates was in April and May 2020 with nearly -7 inflows per 1,000 (not displayed), which equates to reducing ALMP programme inflow to nearly zero. As inflow rates extremely differed already in 2019 across programme types (with e.g. 41.6 per 1,000 unemployed UBII recipients into classroom training and 7.1 into further vocational training), the absolute average drop in inflow rates in 2020 varies accordingly (e.g. -23 and -3 per 1,000 for classroom training and further vocational training, see Table 6, Panel A). In relative terms (i.e. taking the average inflow rates in 2019 from Table 3 as benchmark), all programmes decreased on average by -51% between April and August 2020, with in-firm training decreasing the most (-67%) and further vocational training the least (-42%). In June, inflow rates into OEJs, further vocational training and classroom training started to recover (relative decreases between -8% and -30%; not displayed), while they stayed relatively low for wage subsidies and in-firm training (between -35% and -59%). These programme types take place within firms, i.e. participants and employers come into direct contact. This direct contact may initiate 'glue effects' leading to higher employment prospects (see e.g. Harrer et al. (2020) and Kopf (2013) for in-firm training; Bernhard et al. (2008) for wage subsidies). Therefore, particularly the drop in firm-based programmes is worrisome.

Shifting our focus to the different groups of UBII recipients, Panels A and B in Table 6 show higher absolute drops in overall inflow rates among young UBII recipients, foreigners and men, as well as lower drops for older UBII recipients and women. To complete the picture, we rely on the aggregated differences in inflow rates for the group comparison across the different programme types (as we did in the previous sections with the CRC). The group differences within programmes follow the same pattern as the group differences across all ALMP programmes. OEJs are the only exception, with older UBII recipients having more severe inflow rate drops and foreigners showing lower drops. However, the differences across programmes are more pronounced for specific groups, e.g. foreigners and young UBII

recipients suffer from particularly severe drops in inflow rates into classroom and in-firm training. Observing wage subsidies, inflow rates among men and young UBII recipients decreased over-proportionally. For UBII recipients without vocational degree we do not observe such deviations across programmes.

Table 6 about here

7. Conclusion and Discussion

This paper analyses UBII entries and exits during the first months of the Covid-19 pandemic in Germany. To provide a comprehensive overview, we compared entries and exits across groups of persons and sectors in 2020 with 2019 and calculated a CRC similar to that proposed by Böhme et al. (2020). Furthermore, we evaluated groups' entries to different ALMP programmes in 2020, as opposed to 2019, because such programmes provide UBII recipients opportunities to invest in their human capital. This study is one of the first focussing on the first changes occurred in the UBII system amid the Covid-19 crisis.

According to our findings, the CRC of the UBII population was more strongly driven by a lower exit rate into employment than the CRC of the general unemployed population, with the exit rate dropping dramatically during April and May, when the first shutdown took place. The exit rate decreased also for a longer time than in the case of the general unemployed.

As for the group analysis, results demonstrate those most affected by the crisis were foreigners and people without a vocational degree, with a CRC considerably higher than the average CRC.⁴ In particular, these two groups possessed by far lower exit rates from UBII as opposed to 2019. For these most-affected groups, CRCs might be larger than for the average because they are in a more vulnerable position in the labour market. It is likely that they must queue to find a job for longer, not only due to the decline in job openings but also due to employers' preference for other applicants. According to signalling theory, employers prefer applicants with a certain level of education and German language skills. Moreover, that these most-affected groups experience statistical discrimination is also possible. Furthermore, they might usually find jobs in labour market segments that were more strongly affected or offer weaker employment protection.

⁴ Unfortunately, the aggregate database does not allow us to study the interaction of these two characteristics, i.e. how strongly the two groups overlap and whether the CRC is mainly driven by one of the characteristics.

On a slightly positive note, there hardly are relevant differences between women and men. Relying on the theories of signalling and statistical discrimination, one might have expected women to be harder affected by the economic downturn than men because they were already in a more disadvantaged position before the Covid-19 outbreak (Achatz/Trappmann 2011; Beste/Trappmann 2016). However, although women on UBII might need longer to take up a job, once they take up a job, their employment is more stable (Dengler et al. 2021). One factor behind this might be that they are employed more often in human health & social work activities, which show longer employment durations and were less affected during the crisis, as they were regarded as most relevant to the system.

Several sectors that mainly provide employment opportunities for UBII recipients were those hardest hit by the crisis as a whole and by the social distancing measures in particular: accommodation & food service and temporary work agencies. We suspected the groups we found to be most affected by the crisis could have over-proportionally exited from unemployment to these sectors before the Covid-19 pandemic, which could have explained why their exit rates dropped as much. Although we found these groups do show higher CRCs in such sectors, they also underwent the strongest CRCs in all of the other economic sectors. Thus, these results imply that group differences in their distribution across sectors do not wholly explain why the exit rates of foreigners and those without any vocational degree substantially dropped during the first months of the pandemic.

As for the participation in ALMP programmes, our findings point towards further group differences. We found most critical that UBII recipients younger than 25 show the sharpest drop in programme entry rates, with these programmes being wage subsidies, classroom training and in-firm training. To a lesser extent, men and foreigners also saw their entries to these programmes diminish over-proportionally during the first months of the pandemic. Since previous research has demonstrated that especially wage subsidies and in-firm training have positive effects on participants' employment, the suspension of these opportunities is likely to have detrimental effects on those who could have benefited from participating. Therefore, the decline in participation is worrying, in particular for young adults, not least considering their being in a critical life-course stage in which they should gain qualifications and work experience.

One limitation of this paper is that the data is not available after August 2020, leaving us with a relatively short time span to observe the fluctuations in UBII after the Covid-19 outbreak. Because the data is available at the aggregate level, we cannot draw any causal inference either.

However, our descriptive analysis calls for attention to three wide-ranging issues. First, given that the opportunities of people on UBII are highly dependent on the economic sectors that have been seriously hit by the crisis, the pandemic, as well as a continued use of social distancing measures, might further affect such sectors and, thus, UBII recipients. Second, the crisis has affected the employment opportunities of people on UBII disparately, with foreigners and people without a vocational degree struggling disproportionately to find a job. As a second shutdown was implemented in November 2020 (and neither the German economy nor UBII system returned to their pre-pandemic levels yet), we can only imagine that the job opportunities of people under UBII, and possibly in particular of the mentioned groups, will be further impaired, which may translate into more people becoming long-term unemployed. That UBII recipients miss the chance to take part in supportive ALMP programmes might also contribute to increasing unemployment in the long term, which might be particularly problematic for young adults. These developments would constitute a serious issue, since research has well documented that those who are unemployed for a long term face many barriers to finding a job. Third, while it is clear that UBI was the main safety net that cushioned the unemployment emerged during the first shutdown, UBII might become a larger safety net with the second shutdown, as people might run out of UBI, workers might be dismissed and self-employed might report themselves bankrupt, to name a few reasons. To make things worse, these three issues are likely to last longer, given that the end of the pandemic is inestimable, and so that of the recession.

The Covid-19 pandemic thus will scar German welfare recipients and challenge the UBII system for a longer time. Our analyses showed that those without vocational degree suffer most in their employment opportunities during the crisis. Thus, it is urgent that unemployed UBII recipients are granted the possibility to invest in their human capital and to encounter its depreciation. Job centres can support recipients by offering them the opportunity to participate in ALMP programmes onsite or online, provided that welfare recipients' digital competencies are sufficient and they possess the equipment needed. Yet we know that case-workers might face difficulties in coaching the unemployed adequately during the pandemic, in particular as the number of unemployed increases. Moreover, job centres and private

(training or placement) providers have to implement new concepts and programmes to facilitate upskilling and labour market integration for UBII recipients in this new scenario.

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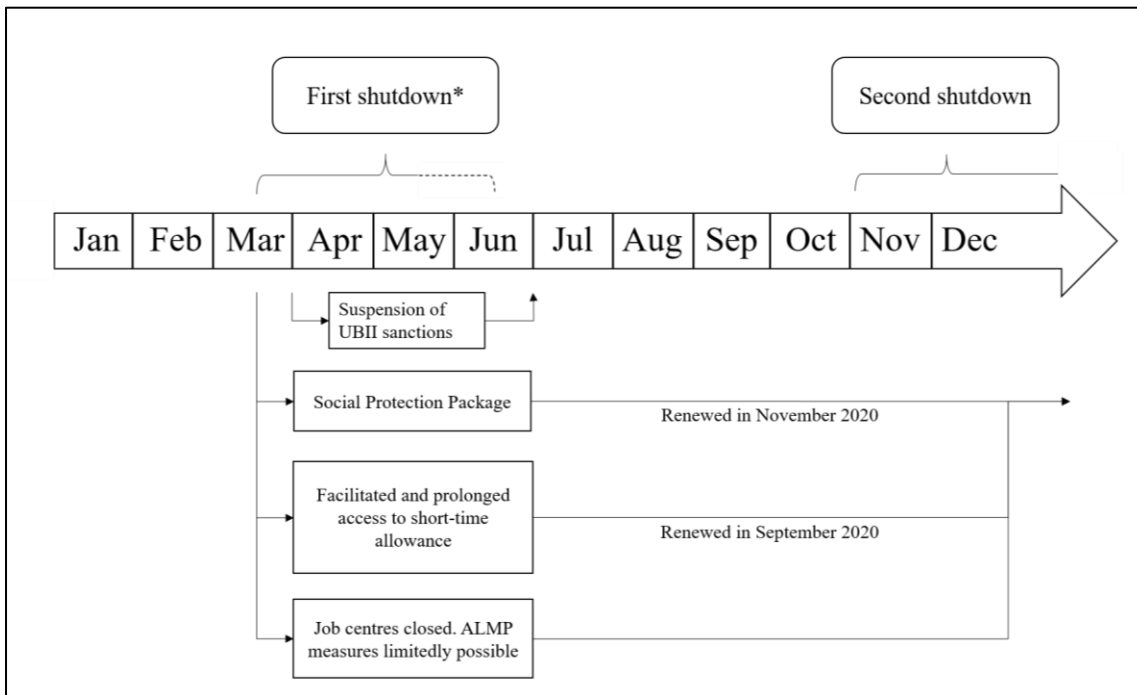
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Figures and Tables

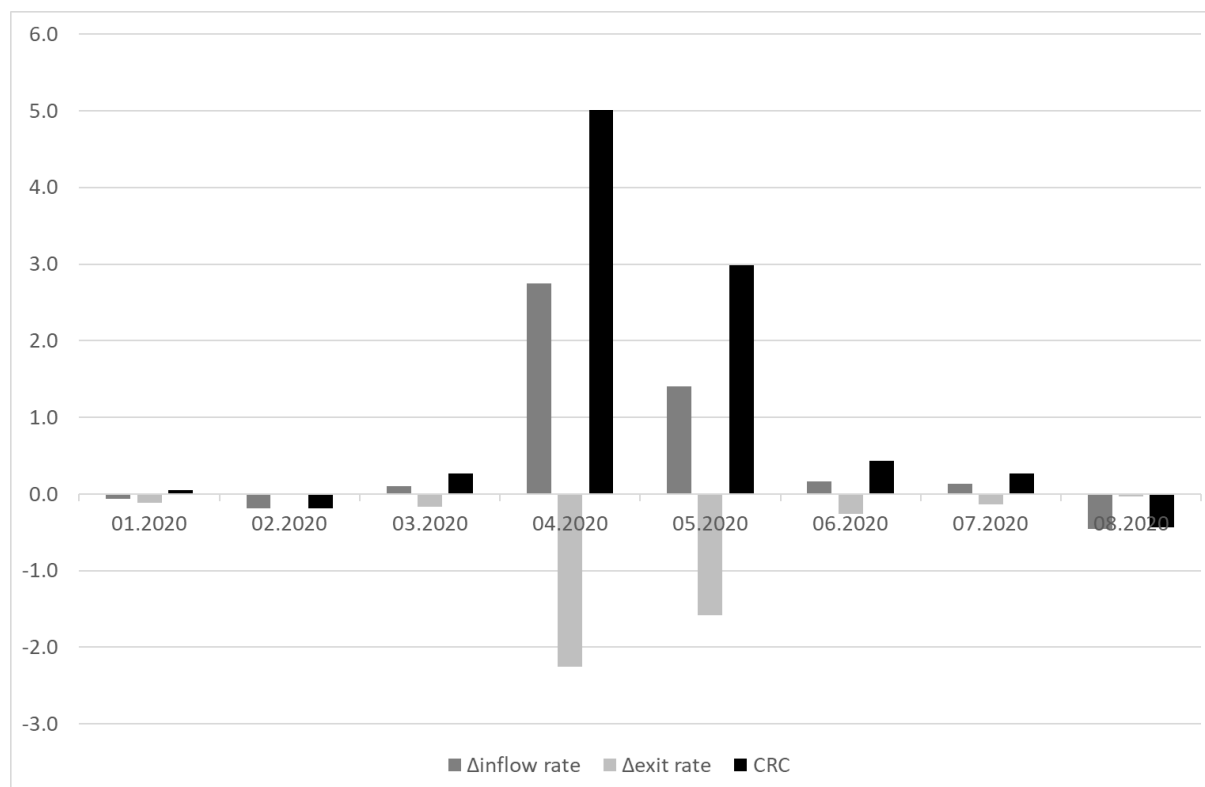
Figure 1: Timeline on social-distancing measures for 2020 (with focus on UBII)



Notes: *The first shutdown had no unique ending date. Rather, regional governments gradually lifted or relaxed measures at different times between May and June (indicated by the dotted line).

Source: Federal Employment Agency (2020); Federal Ministry of Finance (2021); Federal Ministry of Labour and Social Affairs (2020). Own illustration.

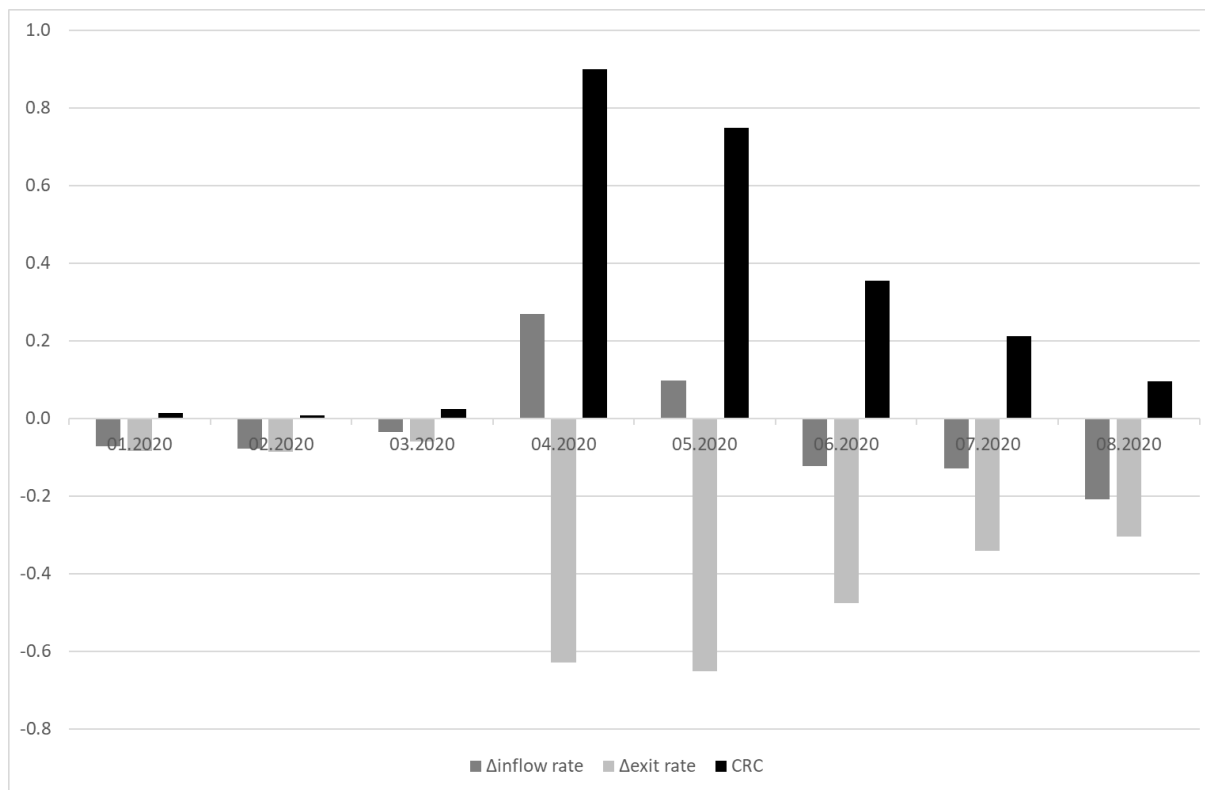
Figure 2: Corona-related changes in unemployment



Notes: Corona-related change (CRC): differences in inflow rate from employment into unemployment and exit rate from unemployment into employment between 2020 and 2019 per 1,000 individuals in contributory employment.

Source: Department for Statistics of the German FEA, own calculations.

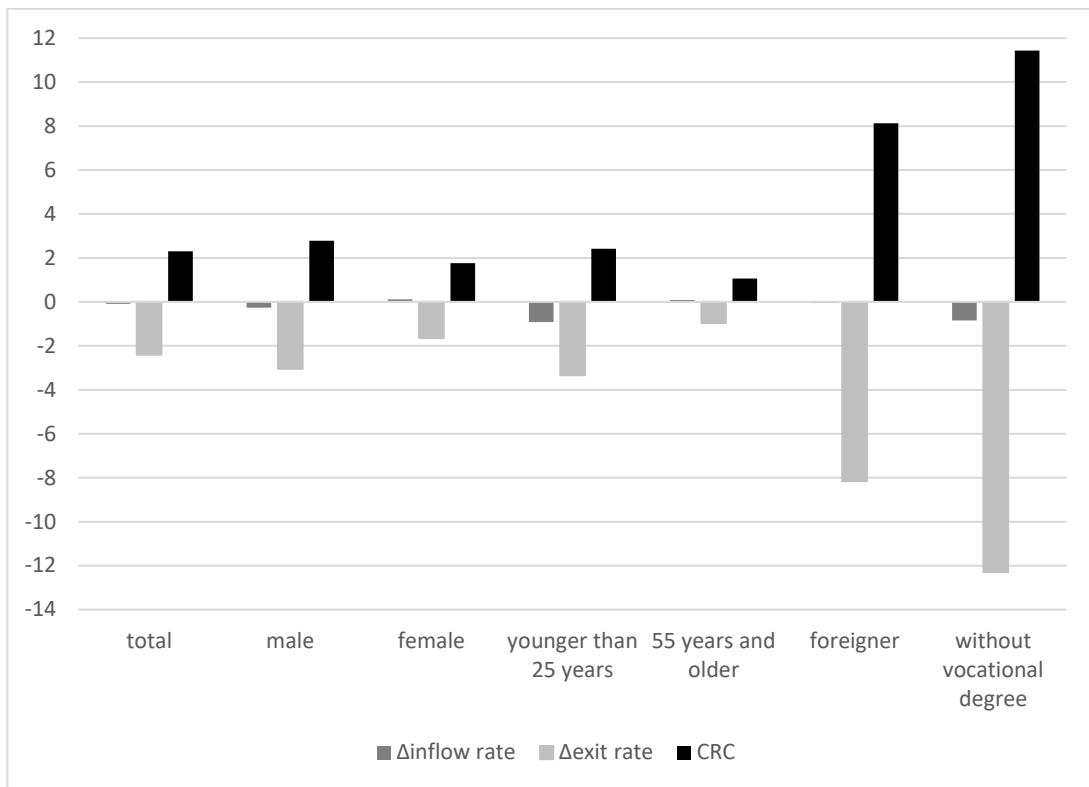
Figure 3: Corona-related changes in unemployment for UBII recipients



Notes: Corona-related change (CRC): differences in inflow rate from employment into unemployment and UBII receipt and exit rate from unemployment and UBII receipt into employment between 2020 and 2019 per 1,000 individuals in contributory employment.

Source: Department for Statistics of the German FEA, own calculations.

Figure 4: Corona-related change in unemployment for different groups of UBII recipients



Notes: Corona-related change (CRC): differences in inflow rate from employment into unemployment and UBII receipt and exit rate from unemployment and UBII receipt into employment between 2020 and 2019 per 1,000 individuals in contributory employment. Aggregated values for April – August.

Source: Department for Statistics of the German FEA, own calculations.

Tables

Table 1: Entry and exit rates of UBII recipients by individual characteristics in 2019 (annual average)

	Entries	Exits
Total	0.96	1.17
Men	1.21	1.40
Women	0.68	0.90
Younger than 25 years	1.64	1.67
55 years and older	0.34	0.39
Foreigner	3.35	3.78
Without vocational degree	5.07	5.60

Notes: Inflows from contributory employment into UBII unemployment and exits from UBII unemployment into contributory employment per 1,000 individuals in contributory employment.

Source: Department for Statistics of the FEA, own calculations.

Table 2: Economic sectors for contributory employment take-ups of unemployed UBII recipients in 2019

Economic sector	Total	Men	Women	For- eigners	< 25 years	≥55 years	without voca- tional degree
Total (in 1,000)	470.37	303.62	166.76	187.24	68.45	32.95	282.54
thereof (in %):							
agriculture, forestry & fishing	0.62	0.67	0.53	0.35	0.36	1.30	0.53
mining & quarrying, electricity, gas, steam & water supply	0.61	0.84	0.18	0.40	0.34	0.72	0.56
manufacturing	5.85	6.73	4.26	5.78	5.14	4.91	5.22
construction	5.81	8.58	0.77	7.13	4.44	5.52	6.44
wholesale & retail trade, repair of motor vehicles & motor cy- cles	13.03	11.07	16.59	10.93	15.54	10.58	12.30
transport & storage	7.78	10.40	3.00	9.02	6.29	7.90	8.69
accommodation & food service activities	9.07	8.10	10.85	12.35	10.05	10.29	10.71
information & communication	1.34	1.44	1.17	0.61	0.63	1.09	0.64
financial & insurance activities	0.34	0.26	0.47	0.14	0.18	0.29	0.16
Other economic services (w/o temporary agency employment)	17.18	15.73	19.83	16.80	13.24	20.25	17.59
temporary agency employment	21.55	27.10	11.45	26.06	33.36	14.53	24.91
public administration & defence; compulsory social security; ac- tivities of extraterritorial organi- sations & bodies	1.55	1.13	2.32	0.58	0.50	2.82	0.71
education	2.09	1.19	3.73	1.00	1.01	2.62	1.05
human health & social work ac- tivities	9.05	3.67	18.84	5.21	5.78	11.76	6.82
other service activities; activities of households as employers	4.07	3.04	5.97	3.55	3.08	5.33	3.60
information missing	0.07	0.07	0.07	0.08	0.03	0.05	0.07

Notes: Exits from unemployment and UBII receipt into contributory employment by economic sector

Source: Department for Statistics of the German FEA, own calculations.

Table 3: Inflow rates into different ALMP programme types in 2019

	Wage subsi- dies	Class- room training	In-firm training	One- Euro- Jobs	Further vo- cational training	Overall
Total	7.20	41.61	8.31	10.01	7.13	8.89
Men	8.55	44.19	9.79	11.15	7.89	9.78
Women	5.52	38.36	6.45	8.58	6.17	7.79
Younger 25 years	8.82	95.48	16.87	8.75	4.94	17.74
55 years and older	2.97	23.55	3.59	15.92	2.33	5.41
Foreigner	7.69	50.23	9.31	5.29	8.03	9.77
No vocational degree	6.00	44.03	7.86	9.47	6.65	8.94

Notes: Inflows into different ALMPs irrespective of the previous labour market state (annual mean, per 1,000 unemployed UBII recipients)

Source: Department for Statistics of the German FEA, own calculations.

Table 4: CRC by economic sector for UBII recipients

	Δ inflow rate	Δ exit rate	CRC
Total	-0.10	-2.40	2.31
temporary agency employment	-7.94	-27.34	19.40
accommodation & food service activities	5.15	-8.74	13.89
transport & storage	1.00	-2.47	3.47
other service activities; activities of households as employers	0.79	-2.54	3.34
other economic services (w/o temporary agency employment)	-0.02	-3.04	3.01
wholesale & retail trade, repair of motor vehicles & motor cycles	0.12	-1.86	1.98
construction	-0.72	-2.58	1.85
agriculture, forestry & fishing	-0.54	-1.97	1.43
human health & social work activities	0.01	-1.06	1.07
mining & quarrying, electricity, gas, steam & water supply	-0.19	-1.11	0.93
education	0.06	-0.85	0.91
information & communication	0.08	-0.74	0.82
manufacturing	-0.11	-0.77	0.66
public administration & defence; compulsory social security; activities of extraterritorial organisations & bodies	-0.14	-0.34	0.21
financial & insurance activities	0.02	-0.12	0.14

Notes: Corona-related change (CRC): differences in inflow rate from employment into unemployment and UBII receipt and exit rate from unemployment and UBII receipt into employment between 2020 and 2019 per 1,000 individuals in contributory employment. Aggregated values for April – August.

Source: Department for Statistics of the German FEA, own calculations.

Table 5: CRC by economic sector for different groups of UBII recipients

	Total	Women	Men	For- eigners	<25 years	≥ 55 years	with- out vo- ca- tional degree
Total	2.31	1.76	2.78	8.12	2.42	1.06	11.44
temporary agency employ- ment	19.40	13.96	21.51	22.44	17.34	11.48	43.40
accommodation & food service activities	13.89	9.94	18.43	24.00	13.10	9.49	45.92
transport & storage	3.47	1.74	4.02	7.34	2.32	2.02	15.95
other service activities; ac- tivities of households as employers	3.34	2.48	4.89	12.45	2.20	1.59	15.29
other economic services (w/o temporary agency em- ployment)	3.01	2.53	3.50	8.82	3.08	1.59	16.02
wholesale & retail trade, repair of motor vehicles & motor cycles	1.98	1.69	2.29	7.00	2.46	0.76	8.70
construction	1.85	1.08	1.97	4.70	0.98	0.89	8.94
agriculture, forestry & fish- ing	1.43	1.08	1.59	1.80	0.35	0.90	6.61
human health & social work activities	1.07	1.06	1.07	3.37	0.49	0.67	3.85
mining & quarrying, elec- tricity, gas, steam & water supply	0.93	0.42	1.07	4.40	0.49	0.24	5.41
education	0.91	0.84	1.11	3.02	0.59	0.33	4.09
information & communica- tion	0.82	0.76	0.85	1.66	0.75	0.17	4.15
manufacturing	0.66	0.71	0.65	2.43	0.81	0.26	3.08
public administration & de- fence; compulsory social security; activities of extra- territorial organisations & bodies	0.21	0.10	0.39	2.28	0.24	0.14	1.41
financial & insurance ac- tivities	0.14	0.16	0.11	1.29	0.16	-0.06	1.27

Notes: Corona-related change (CRC): differences in inflow rate from employment into unemployment and UBII receipt and exit rate from unemployment and UBII receipt into employment between 2020 and 2019 per 1,000 individuals in contributory employment. Aggregated values for April – August.

Source: Department for Statistics of the German FEA, own calculations.

Table 6: Difference in ALMP programme inflows

	Wage subsidies	Class- room training	In-firm training	One- Euro- Jobs	Further voca- tional training	Overall
Panel A: Average difference						
Total	-3.60	-23.04	-5.60	-5.09	-2.99	-4.50
Men						-5.04
Women						-3.82
Younger 25 years						-9.10
55 years and older						-2.51
Foreigner						-5.17
no vocational degree						-4.55
Panel B: Aggregated difference						
Total	-14.40	-92.15	-22.39	-20.35	-11.96	-22.48
Men	-17.96	-100.99	-25.67	-22.92	-13.5	-25.18
Women	-9.98	-81.08	-18.31	-17.15	-10.01	-19.1
Younger 25 years	-19.98	-192.35	-44.39	-21.83	-9.36	-45.51
55 years and older	-6.16	-57.56	-10.32	-28.53	-4.95	-12.56
Foreigner	-16.56	-111.25	-27.04	-11.62	-13.77	-25.86
no vocational degree	-12.89	-96.52	-21.37	-20.52	-11.33	-22.77

Notes: Inflows into different ALMP programmes irrespective of the previous labour market state, per 1,000 unemployed UBII recipients. Differences in inflow rates between 2020 and 2019. Panel A shows the average difference in inflow rates for the months April – August. Panel B shows the aggregated values for April – August.

Source: Department for Statistics of the German FEA, own calculations.