

Integrating People with Disabilities into the Open Labour Market: How Can Wage Subsidies Help? Experience from Czechia

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This article analyses the effectiveness of a wage subsidy programme in integrating people with disabilities into the open labour market in Czechia. In theory, it builds on the capability approach and uses a counterfactual method. The wage subsidy programme has a more significant effect on people with disabilities than on healthy participants and is better for those participants with disabilities who have lower levels of education compared to participants with higher levels of education. We assume that this results from the combined effects on the capability set of people with disabilities in the labour market: the screening effect, the on-the-job training effect and the workplace integration effect. Creaming off within groups, however, is difficult to avoid: it is the more educated and less disadvantaged subgroups of people with disabilities that are prioritised for inclusion in the programme, which lessens its overall impact.

These findings imply that wage subsidy programme should be provided more widely to unemployed people with disabilities to support their integration into the open labour market. Policymakers should prevent within-group creaming off of these candidates.

Keywords: people with disabilities, integration into the open labour market, wage subsidies, policy evaluation, Czechia.

INTRODUCTION

Although data on people with disabilities and their labour market situation are limited, existing evidence shows that the marginalisation of this group in the labour market is a significant problem in Czechia. The Czech Statistical Office (2019) found that in 2018, 13% of the population over

the age of 15 had health problems (reported long-term difficulties in performing basic activities due to health issues). In the 20–64 age group, only 40% of these people (approximately 203,000 individuals) were employed, compared to 79% of the total population, a difference of 39 percentage points, which is significantly higher than

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the EU-28 average of 24 percentage points (51% compared to 75%), according to Patrini and Ahrendt (2021). Viewed from another angle, the employment rate of people with health problems in Czechia was 11 percentage points (pp) below the EU-28 average, while the overall employment rate was 4 pp above the EU-28 average.

People with disabilities are disadvantaged in the labour market because of a combination of demand-side factors, individual factors and institutional factors (e.g. Patrini and Ahrendt, 2021). An additional factor contributing to their disadvantage in the labour market is the impact of welfare state reforms, such as the increase in the statutory pension age combined with activation policies. These policies include 'homogenisation' of benefit entitlements, involving restrictions on access to invalidity pensions, sickness benefits and early pensions, and a tendency to refer non-employed people with disabilities to unemployment and social assistance schemes (Classen and Clegg, 2011).

With the current trend towards 'activation', most countries are in favour of integrating people with disabilities into the open labour market. Effective active labour market policy measures seem to be the most appropriate method to achieve this goal (Jones, 2016; Patrini and Ahrendt, 2021). Subsidies to employers are a widely used measure. These subsidies may be provided as hiring subsidies or wage subsidies. Their design, implementation and labour market context play a role in their outcomes (see below). Moreover, the effects of job subsidies are heterogeneous depending on the subgroup of the participants (e.g. Brown, 2015).

This study explores the net outcomes of the wage subsidy scheme for people with disabilities or health conditions in Czechia and examines the role of human capital (education) among supported peo-

ple in shaping these outcomes. Second, it also explores the targeting of wage subsidies for these groups of people. We used an administrative database from the Czech Labour Office, which contains data on all unemployed people in the country. We conducted a counterfactual impact evaluation of the net effects of wage subsidies provided in 2019.

Our study shows that the wage subsidy programme has a more significant effect on people with disabilities than on healthy participants and is more effective for participants with disabilities who have lower levels of education than for participants with higher levels of education. Paradoxically, more educated and less disadvantaged subgroups of people with disabilities are prioritised for inclusion in the programme, which lessens its overall impact. One obvious limitation in generalising these findings is that the COVID-19 pandemic in 2020 reduced opportunities for hiring new employees; however, evidence from previous years shows similar results.

THEORETICAL BACKGROUND AND NATIONAL CONTEXT

Active labour market policies (ALMPs) supporting people with disabilities

People with disabilities are individuals with long-term physical, mental, intellectual or sensory impairments which, *in interaction* with various barriers, may hinder their full and effective participation in society on an equal basis with others (United Nations, 2006). Hence, the concepts of employability (Gazier, 2001) or capability (Sen, 1993) are suitable for assessing the outcomes of the interaction between individual and structural factors and, among them, specific institutional factors (*conversion factors*), namely ALMPs, in integrating people with disabilities into the labour market.

From the perspective of the capability approach (Ritchie et al., 2022; Van Gorp et al., 2018), we distinguish three key aspects of the capability set, or employability: i) having the opportunity (having access to jobs), ii) being able (possessing human capital/ability to work), and iii) being facilitated and allowed to work (the possibility of integration in the workplace) as pre-conditions for the sustainable employment of people with disabilities.

As part of the wage subsidy intervention, people with disabilities receive i) support in accessing employment, ii) on-the-job training over the subsidised period, which helps them to improve their work abilities and human capital, and iii) the opportunity to adapt to and integrate into the job and the workplace. These constitute the pre-conditions for the labour market integration of people with disabilities (Clayton et al., 2011; Jones, 2016; Patrini and Ahrendt, 2021; Thomas and Morgan, 2020). Besides *general* human capital (formal education and training), which is equally valued in individuals with and without disabilities, and *'healthy* human capital' (human capital that cannot be used in case of disability), which is relevant only for individuals with no health issues, *'disability* human capital' is relevant for people with disabilities (Charles, 2003; Jones, 2016). The latter may include learning to use adaptations that can mitigate the disadvantages experienced. In addition to vocational training and rehabilitation programmes, such human capital gains can also be achieved through on-the-job training and the adaptation of people with disabilities to the requirements of the subsidised job.

Effectiveness of wage subsidies for people with disabilities

Previous studies have shown that wage subsidies are more effective than public

education and training programmes, specifically for the long-term unemployed/LTU and other disadvantaged groups (Brown and Koettl, 2015; Card et al., 2018). Some studies have shown that this also applies to the labour market integration of people with disabilities (Carlson et al., 2020; Datta Gupta et al., 2015; Thomas and Morgan, 2020).

The outcomes of wage subsidies result from several mechanisms, which we summarise in Table 1.

Table 1
Mechanisms driving the outcomes of wage subsidies for people with disabilities

Positive outcomes	References
1 Reduction in wage costs (facilitates access to jobs)	Castro Nuñez et al., 2020
2 Access to real employment in the open labour market	Brown, 2015
3 Screening of participants and their productivity by employers (facilitates access to jobs)	Brown and Koettl, 2015
4 Learning-by-doing (on the job training) and communication	Carlson et al., 2015; Mazzotti et al., 2020
5 Acquisition of workplace norms, social skills, self-advocacy skills and natural self-confidence (adaptation to the job)	Carlson et al., 2015; Mazzotti et al., 2020; Thomas and Morgan, 2020
Negative outcomes	References
1 Lock-in effect (reduced job-search intensity and reduced access to other jobs while in subsidised employment)	Angelov and Eliason, 2018; Brown and Koettl, 2015
2 Signalling and stigma effect in the eyes of employers (reduced access to jobs)	Derbyshire et al., 2024; Jiménez-Martin et al., 2019

Some studies highlight the heterogeneity of wage subsidy intervention outcomes, which depend on several factors. The studies distinguish three main categories of

these factors: the first category concerns the individual characteristics of participants/supported people; more employable participants are more likely to remain in employment (gross outcome), but net outcomes may be better for less employable participants (Brown and Koettl, 2015; Card et al., 2018; Clayton, 2011).

The second category relates to the measure itself, in particular the generosity of the wage subsidy: on the one hand, insufficiently generous subsidies may hinder the recruitment of the target group (Datta Gupta et al., 2020). On the other hand, excessively high subsidies carry the risk that employers will prioritise financial incentives over the individuals themselves, or that the programme will evolve into a segregated sector due to stigmatisation (Di Francesco et al., 2021; Clayton et al., 2012).

The third category involves the targeting of the measure and selection bias, i.e., enrolling more employment-ready participants, particularly among people with disabilities. There are several reasons for such selection bias: the most frequent is self-selection by more job-ready participants, combined with the interaction of the criteria and procedures applied by Public Employment Services/PES, such as a focus on gross outcomes, difficulties in recruiting jobseekers with multiple problems, and the aim of enhancing the credibility of PES in the eyes of employers (Hora and Sirovatka, 2020; Nicaise et al., 1995).

Beyond the factors above, structural factors such as accessibility of suitable jobs for people with disabilities in the open and sheltered labour market play a significant role. However, we do not examine these factors in this study; instead, we abstract from them in our research design (see the 'Research goals, methods and data' section).

People with disabilities or health conditions in the labour market in Czechia

The Czech social security authority recognises the following categories of individuals with health-related difficulties (Zákon o zaměstnanosti, 2004):

- a) individuals with a third-degree disability (and full invalidity pension),
- b) individuals with a first- or second-degree disability (two levels of partial invalidity pension), jointly referred to as 'individuals with disabilities' in this study,
- c) individuals with a health condition (medical disadvantage, chronic or long-term, not fundamentally compromising the person's functioning - i.e. no invalidity pension), referred to as 'individuals with health conditions' in this paper. This last category does not have any entitlement to a full or partial invalidity pension and is more dependent on, and incentivised by, income from paid work.

At the end of 2019, 33,700 individuals with disabilities or health conditions were registered as jobseekers at labour offices, representing 15.6% of the total number of registered jobseekers (215,500). Most of these individuals were LTU jobseekers: in fact, the proportion of persons with disabilities among the LTU was twice as high (33.6%) as among the total unemployed population.

The guidelines of the Directorate General of the Labour Office stipulate that wage subsidies should be provided only to jobseekers with specific disadvantages, such as long-term unemployment or disability. Under the Employment Act, wage subsidies may be granted for a maximum of 24 months under a permanent employment contract or, sometimes, under a contract lasting at least six months. They cover up to the total labour cost, with set

ceilings that vary according to the severity of the disability or health condition, the level of unemployment in the region and the number of new job placements supported by one employer. The total subsidy amount for one supported job is capped at 4 to 8 times the average monthly wage for healthy jobseekers: 4 times the monthly wage when fewer than 10 jobs are created and the unemployment rate in the region is below the country average; and 8 times the monthly wage when 10 or more jobs are created and the unemployment rate is at the level of the country average or higher, and 6 times the monthly wage if only one of the conditions is met. For people with health conditions and first- or second-degree disabilities, the cap is 8 times the average monthly wage (10 times the average wage when 10 or more jobs are created). For people with a third-degree disability, it is 12 times the average monthly wage (14 times the average wage when 10 or more jobs are created).

There is also another measure that directly supports persons with disabilities in gaining access to employment in the open labour market: employers with more than 25 employees are required to employ persons with disabilities in a number corresponding to 4% of their total workforce. This obligation can be fulfilled either through direct employment, through the purchase of products and services from sheltered workshops (so-called substitute performance), or through payments to the state budget.

RESEARCH GOALS, METHODS AND DATA

Research goals

Drawing on the discussion in the theoretical background section we consider how the interaction of several factors determines whether the positive outcomes of

wage subsidies prevail over the negative outcomes.

Because studies indicate that wage subsidies may have heterogeneous outcomes depending on the individual characteristics of the participants (Factor 1) we raise the following question:

Question 1: How effective are wage subsidies in terms of net outcomes for people with disabilities or health conditions compared to those with no health problems, both in the short and long run? Furthermore, how effective are they for people with disabilities compared to those with less severe health conditions?

Next, for a similar reason, we examine the role of participants' human capital (education level), which is, beyond their health status, a key asset for employability. We raise the following question:

Question 2: How effective are wage subsidies for people with disabilities or health conditions who possessed a higher level of human capital prior to the intervention (measured by the level of education attained), compared to people with disabilities with a lower level of human capital.

Lastly, because studies warn of the risk of negative net outcomes of the measure due to the selection bias (creaming off) – i.e., the selection of the more employable participants (Factor 3) – we raise two questions regarding the targeting of the measure. First, we examine whether creaming off occurs in favour of healthy participants compared with the disabled participants (the target group).

Question 3a: To what extent are wage subsidies targeted at jobseekers with disabilities or health conditions compared to healthy jobseekers?

Next, we examine whether creaming off occurs within the target group (disabled participants) in favour of those who

are more employable: better educated, with less experience of unemployment, and the like.

Question 3b: In targeting interventions, does any creaming off occur within the group of people with disabilities or health conditions in favour, for example, of those who are more 'job ready'?

We could not examine the role of Factor 2, such as the generosity of the wage subsidy, because individual-level data do not include this information.

Data

The Czech Ministry of Labour and Social Affairs granted us access to a pseudonymised administrative database of jobseekers called "OK Práce", as part of a broader research project assessing the impact of ALMP instruments in Czechia in 2019–2020. We used a specific subset of data comprising individuals registered as unemployed at the beginning of 2019 (stock component) and individuals who registered during 2019 (inflow component), as well as all ALMP participants (a total of 575,478 individuals).

We estimated the effect of wage subsidies by comparing the outcomes of participants with those of a control group. To construct the control group, we used the method of coarsened exact matching (Blackwell et al., 2009; Iacus et al., 2012) to select individuals who did not participate in any active labour market policy measure in 2019. The key variables used for matching are presented in Table A1. After matching, the analytical sample (intervention group) consisted of 2,050 participants for whom controls could be matched (68% of all programme participants). The intervention group included 1,399 healthy participants, 389 participants with health conditions, and 262 participants with disabilities.

The Czech unemployment register is not linked to social security data; therefore, it was not possible to monitor the employment status of programme participants or the control group in the period after they left the PES register. We thus evaluated the programmes as follows:

- The targeting index, which is the percentage of participants from a specific category of jobseekers (e.g. jobseekers with low education levels) among all participants in the same programme during the year (the share in programme enrolment), compared with the percentage of jobseekers from the same category (jobseekers with low education levels) among all jobseekers at the end of the year (the share in the unemployment stock). If a specific category of jobseekers is underrepresented, the value is below 1, and vice versa. We considered a category to be underrepresented among programme participants if the targeting index fell below 0.8. The analysis took into account gender, age, level of education and length of unemployment for all categories of unemployed people and programme participants, i.e., healthy individuals and individuals with disabilities or health conditions (see Table A3).
- The probability of remaining on the PES register during the observation period, i.e., after the start of the programme (Figures 1-5). We tracked the presence of individuals on the register for 900 days, i.e., until mid-2022. The data are visualised at specific time points, showing the days of measurement and the corresponding values. It is important to distinguish between short-term effects (during the support period) and medium- and long-term effects (after the end of support). The vertical lines in the graphs indicate these periods. The median duration of support was identical for all groups (about 365 days), while

the average length of the support period, including dropout cases, was 298 days for healthy participants, 296 days for participants with health conditions, and 283 days for participants with disabilities, indicating that the differences were negligible.

- A competing risks analysis (Scrucca et al., 2007) of the reasons for leaving the register at the time of departure (Table A2). We analysed the competing risks of the different reasons for participants leaving the register at various time points within 600 days after the start of the programme. These reasons were: participation in a subsidised job, finding a job in the open labour market, family or personal reasons, sanctions (exclusion from the register), and an 'unspecified reason' (typically outflow into inactivity, such as (early) retirement or other forms of inactivity).

We briefly discuss the limitations of the current study. First, there may still be some unmeasured confounders, such as work motivation and family composition, which could contribute to hidden selection bias. We used a general measure of vacancies, which may not adequately reflect the vacancies available to disadvantaged workers. In addition, there is limited temporal generalisability: the effects of the programme launched in 2019 may have been influenced by the COVID-19 pandemic, which negatively affected the country's labour market in terms of vacancies and job creation from March 2020 onwards. It is unclear whether this could have affected the net outcomes of wage subsidies. However, Hora et al. (2022) compared the net outcomes of the wage subsidy programme in 2017 and 2019 for all jobseekers and concluded that the outcomes were very similar. Finally, we did not investigate how the characteristics of the wage subsidy measure and the context

influenced the behaviour of employers; this would require a different research design.

FINDINGS

We present the findings structured according to the three research questions (see the 'Research goals, methods and data' section).

The effectiveness of wage subsidies for people with disabilities, people with health conditions, and healthy jobseekers (Question 1)

To address this question, we employed two measures, as explained above. Measure 1 tracks the presence of programme participants on the register at various time points, following the beginning of the measure, compared with the respective control group. Measure 2 analyses the reasons for leaving the register for both the participants and the control group. For both measures, we compared healthy participants, participants with health conditions and disabled participants.

Measure 1: Absence versus presence on the register

The evidence indicates that the intervention has a positive effect in terms of participants' absence from the unemployment register, even after the programme ends. The effect is strongest in the short run (up to 12 months) and declines in the long run (30 months after enrolment).

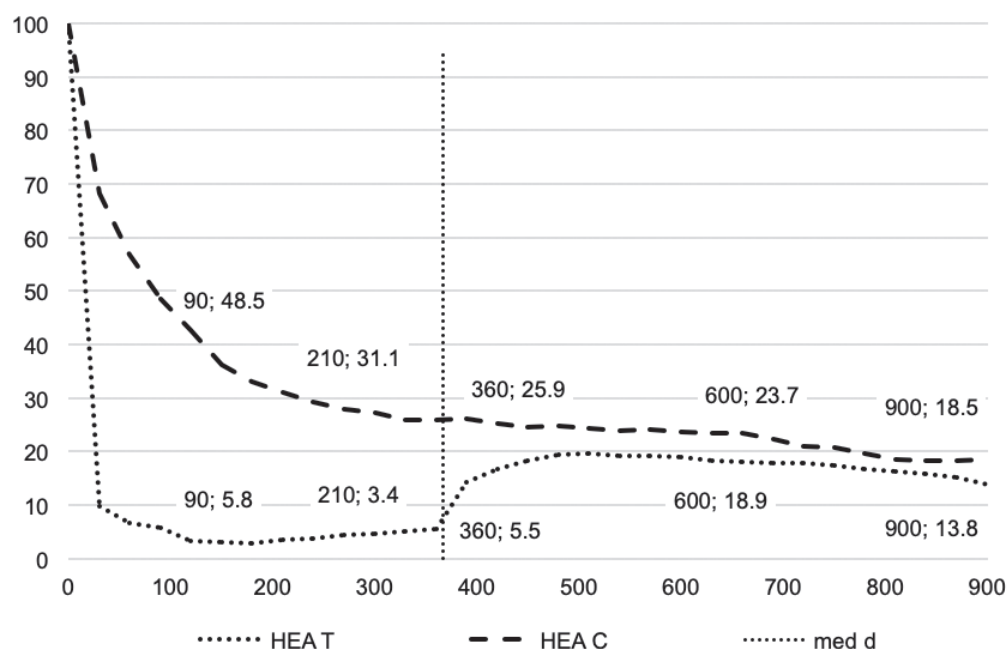
Specifically, almost all programme participants leave the register at the programme's outset because the subsidised job is considered a type of standard employment. Regarding healthy participants, 5.8% return to the register after three months, 3.4% after seven months, and even after 12 months, this proportion remains low (5.5%). Two and a half years after joining the programme, 18.5% of healthy pro-

gramme participants are registered. The difference between the intervention and control groups is 42.7 percentage points (pp) after three months, but tends to decline over time: 18.5 pp at seven months after entering the programme, 20.4 pp at 12 months, and 4.7 pp at two and a half years, because the control group of healthy jobseekers leave the register in high numbers (see Figure 1).

Although participants with disabilities or health conditions remain on the register at a significantly higher rate than healthy participants, the difference between these groups and their respective control groups is more pronounced: it is 53.4 pp for persons with health conditions seven months and 45.8 pp 12 months after entering the programme (see Figure 2), and 50 pp for persons with disabilities after 7 months and 39.7 pp after 12 months (see Figure 3).

Figure 1

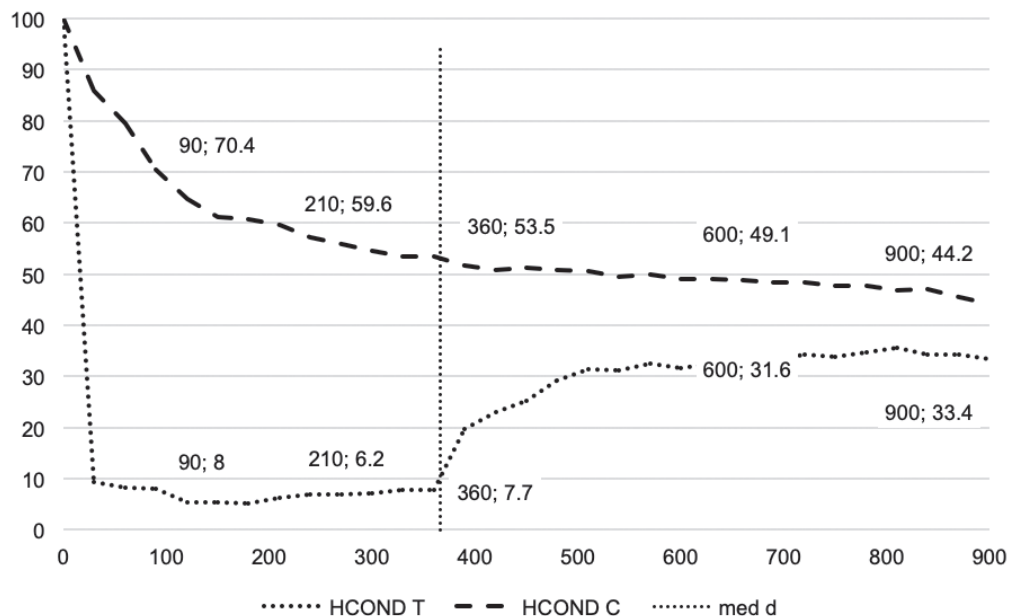
Healthy participants in the wage subsidy programme compared with relevant control group



Notes: axis x = days from entry into the programme, axis y = percentage of participants in the register; HEAT – healthy participants, HEA C – healthy control group, med d – median duration of wage subsidy. Healthy participants (N = 1,399).

Figure 2

Participants with health conditions in the wage subsidy programme compared with relevant control groups

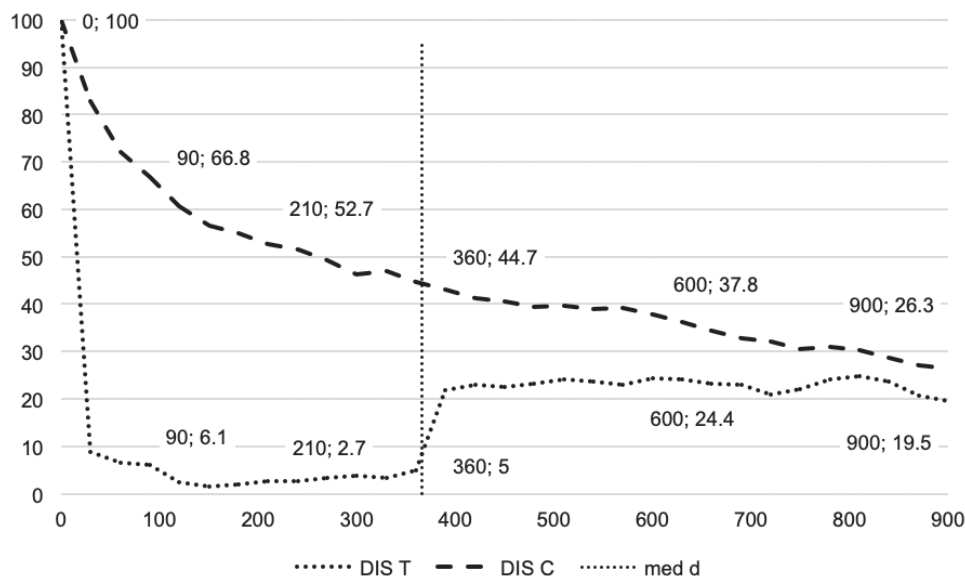


Notes: axis x = days from entry into the programme, axis y = percentage of participants in the register; HCOND T – participants with health conditions, HCOND C – control group with health conditions, med d – median duration of wage subsidy. Participants with health conditions (N = 389).

After the subsidy ends, the observed difference between the intervention and control groups diminishes, as more participants return to the register. After two and a half years, this difference drops to 10.8 pp (for people with health conditions)

or even to 5.8 pp (for people with disabilities) (see Figures 2 and 3). Consequently, regarding their impact on remaining in the register, wage subsidies showed more promising results for people with disabilities and health conditions than for healthy participants.

Figure 3

Participants with disabilities in the wage subsidy programme compared with relevant control groups

Notes: axis x = days from entry into the programme, axis y = percentage of participants in the register; DIS T – participants with disabilities, DIS C – control group with disabilities, med d – median duration of wage subsidy. Participants with disabilities (N = 262).

One reason why the net effects of wage subsidies are more significant for people with disabilities and health conditions is that their control groups have lower chances of leaving the register compared to the controls of healthy participants (see Figures 1, 2 and 3). This indicates the significant role of the structural and individual factors that disadvantage people with disabilities and health conditions in accessing jobs in the open labour market.

Measure 2: Reasons for leaving the register

The analysis of the reasons for leaving the register among programme participants demonstrates the overall positive effect of the programme. The main reason for leaving the register, irrespective of health status, is taking up a subsidised job (approximately 90% of outflows), with

minimal variation observed at 210, 360 or 600 days following enrolment in the programme. For less than 10% of programme participants, the reason for leaving the register is entry into unsupported employment or, exceptionally, other unspecified reasons (see Table A2 in the Annex).

In contrast, 30-40% of the controls typically enter employment within 20 months. This is 54-68 pp less than the rate for programme participants with disabilities or health conditions when considering all job entries, subsidised and non-subsidised. Most of these controls leave the register because of inactivity or sanctions (see Table A2 in the Annex).

In summary, the findings on the wage subsidy programme show that there are significant positive effects for participants with disabilities or health conditions in the short and long run, with a difference

of 70-80 pp shortly after the programme starts and approximately 10 pp compared with the respective control groups two and a half years later. The difference decreases over time, particularly after the subsidy ends (10-12 months post-enrolment), but remains larger than that observed for healthy participants. In comparison with the control groups, participants with disabilities or health conditions are significantly more likely to leave the register for employment (subsidised or non-subsidised) and less likely to exit into inactivity or due to sanctions than healthy participants. The difference between participants with disabilities and those with health conditions is small.

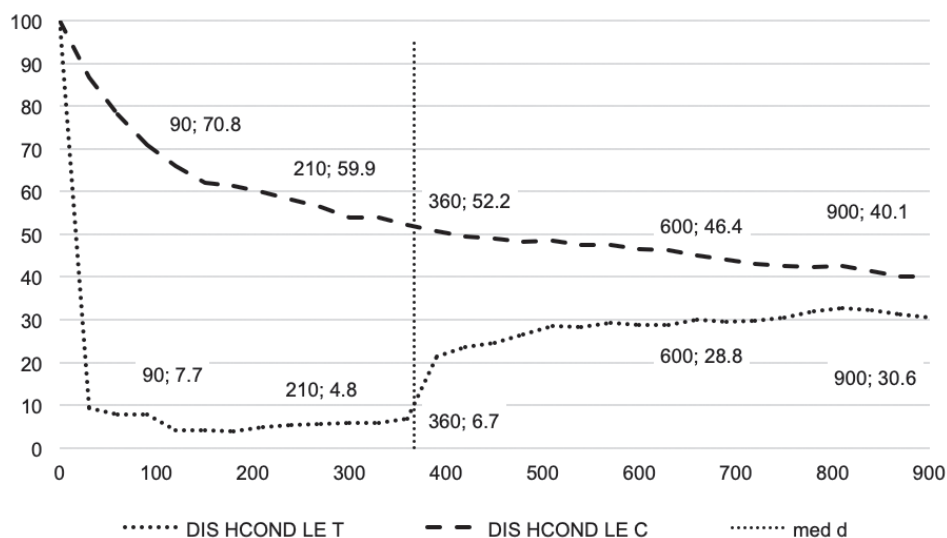
The effectiveness of wage subsidies for people with disabilities or health conditions by level of education (Question 2)

The second question focuses on the role of human capital (indicated by the level of education) interacting with the participants' health status. We compared the presence of participants with disabilities or health conditions who have lower education levels, and those with higher education levels, with their respective control groups at different time points following their entry into the programme.

The positive effect of the programme in terms of participants' absence from the register is more pronounced for participants with disabilities or health conditions who have lower levels of education compared with the control group: after three months, the difference is 63.1 pp, after seven months it is 55.4 pp, after one year it is 45.6 pp, and after two and a half years, it remains at 9.5 pp (see Figure 4).

Figure 4

Participants with disabilities or health conditions who have lower education levels compared with the relevant control group



Notes: axis x = days from entry into the programme, axis y = percentage of participants in the register; DIS HCOND LET – participants with disabilities or health conditions and with lower education, DIS HCOND LE C – control group with disabilities or health conditions and with lower education, med d – median duration of wage subsidy. Participants with disabilities or health conditions and with lower education (N = 496).

For participants with disabilities or health conditions who have higher levels of education, the positive effect is somewhat less pronounced compared to the control group. After three months, the difference is 57.5 pp, after seven months 42.6 pp, after one year 36.1 pp, and after two and a half years, 12.9 pp (see Figure 5).

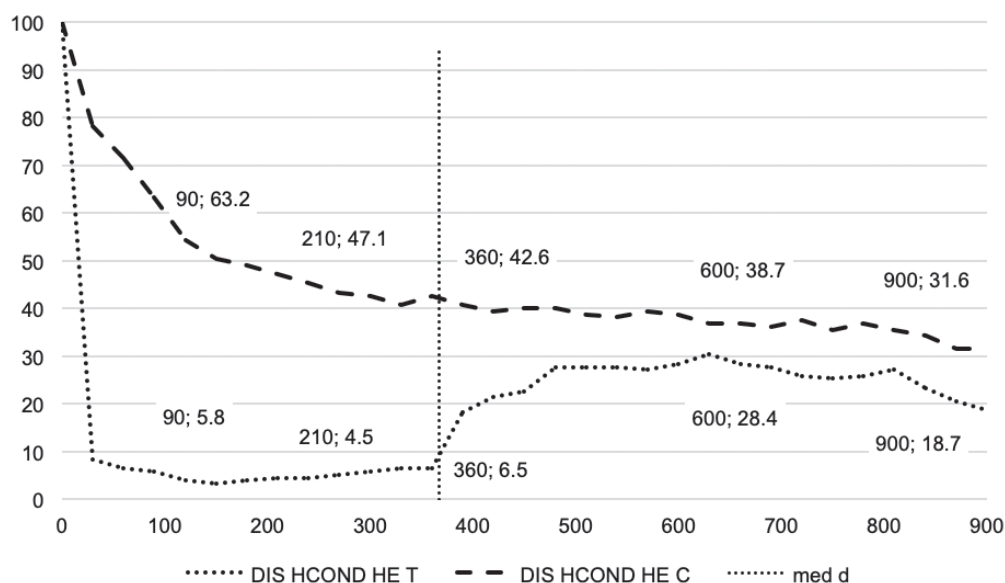
education compared to those with higher qualifications.

The targeting of wage subsidies

Finally, we examined the targeting of wage subsidies. Here, we used the targeting index (see the 'Research goals,

Figure 5

Participants with disabilities or health conditions who have higher education levels in the wage subsidy programme compared with the relevant control group



Notes: axis x = days from entry into the programme, axis y = percentage of participants in the register; DIS HCOND HET – participants with disabilities or health conditions and with higher education, DIS HCOND HE C – control group with disabilities or health conditions and with higher education, med d median duration of wage subsidy. Participants with disabilities or health conditions and with higher education (N = 155).

Notably, only the last difference is 3.4 pp larger than that observed for participants with lower levels of education, which is 9.5 pp (compare Figures 4 and 5).

The findings show that wage subsidies have relatively sound effects in the short and long run, with stronger effects observed for participants with disabilities or health conditions and lower levels of

methods and data' section) and compared results for healthy participants, participants with health conditions and participants with disabilities. Subsequently, we compared sub-groups of participants with health conditions and participants with disabilities based on education, age, gender and previous experience of unemployment.

The targeting of wage subsidies at individuals with disabilities or health conditions (Question 3a)

In 2019, almost one-third of the unemployed individuals registered at labour offices at the beginning of the year (stock) or who registered in the course of the year (flow) had health problems. In our sample of 2,050 participants in the wage subsidy programme, the proportion of individuals with disabilities or health conditions was 36.5%. ALMP programme coverage is relatively modest in Czechia, representing approximately 12.5% of the total unemployment stock in 2019. However, it accounted for 15.6% among people with disabilities or health conditions, for whom wage subsidies were the most frequently used measure (MPSV/MLSA 2020).

The targeting index (see the 'Research goals, methods and data' section) was 1.31 for unemployed people with health conditions, 1.44 for those with disabilities, and 1.37 for all individuals with health problems combined. This indicates that people with disabilities or health conditions were prioritised for programme access over healthy candidates (targeting index 0.87), consistent with Employment Office directorate guidelines. Based on these findings, we hypothesise that the design of the measure (specifically the generosity of the subsidy) effectively encourages employers to hire people with disabilities and health conditions.

Within-group targeting in the category of individuals with disabilities or health conditions (Question 3b)

The findings show that the wage subsidy programme was strongly targeted at persons with higher education (ISCED 5-8), with a targeting index of 1.56 for individuals with health conditions and 1.61 for those with disabilities. The lowest targeting indexes were found in the low-skilled group (ISCED 0-3), both among

individuals with health conditions (0.62) and those with disabilities (0.53) (see Table A3 in the Annex). Regarding age, the programme primarily targets unemployed people in the 50-59 age group (targeting index of 1.36 and 1.11 for the two groups with health problems, respectively). The age group of 60 years and above is under-represented (0.64 and 0.63).

Similarly, unemployed candidates with disabilities or health conditions who have one to three previous unemployment spells are prioritised (targeting index of 1.19 for those with health conditions and 1.12 for those with disabilities) over candidates with four or more unemployment spells (0.80 and 0.72). The short-term unemployed are slightly prioritised in targeting (1.16 and 1.14) over the long-term unemployed (0.98 and 0.96). Further details can be found in Table A3 in the Annex.

Overall, within-group creaming off is evident in both groups (with health conditions and with disabilities), showing a preference for participants with higher levels of education, aged 50-59, and with fewer previous unemployment spells. However, gender is an exception: among people with health problems (the two subgroups were merged), the programme is more targeted at women (1.20) than at men (0.80). This finding shows that front-line staff take into account additional disadvantages that women face, such as returning to the labour market after long parental leaves (allowable in Czechia until the child is four years old), and view women as deserving of support.

In summary, the findings show a selection bias in favour of more job-ready job-seekers. This selection bias (within-group creaming off) implies a dead-weight effect that weakens the overall positive outcomes of the programme, as evidenced by the case of lower-educated people with disabilities or health conditions (see findings related to question 2).

Creaming off within a group may stem both from the limited scope of the measure and from the design, e.g. subsidies are not generous enough to incentivise employers to hire those people with disabilities who suffer from additional disadvantages such as low education, advanced age, or a longer history of unemployment. However, we did not examine the role of policy design, such as the generosity of the subsidy, or the role of the labour market context at the individual level.

DISCUSSION AND CONCLUSION

The study confirms that the wage subsidy programme has a significant effect on participants with disabilities or health conditions in terms of their presence on the register of jobseekers compared with the control group. This outcome is evident in both the short run (a difference ranging from 70 to 45 pp over time) and the long run (a difference of approximately 10 pp). Participants are also less likely to become inactive or to be removed from the register because of sanctions. These differences are more significant when compared with healthy participants and their control group. The effects of the wage subsidy programme are somewhat more pronounced among participants with disabilities or health conditions who have lower levels of education (e.g. a 30 pp difference compared with the control group after one year) than among higher-qualified participants (e.g. a 20 pp difference after one year).

Contextualising these findings within the broader frame of other studies, the overall positive employment outcomes can be attributed to improved capabilities of people with disabilities in the labour market due to the combined effects of easier access to jobs, their screening, on-the-job training, and adaptation at the workplace; these constitute three components of the capability-set (see the theoretical background section). These gains also appear

to effectively countervail the structural factors of their disadvantage.

Wage subsidies are more targeted at jobseekers with disabilities or health conditions than at healthy jobseekers, which enhances the overall effect of the programme. On the other hand, within-group creaming off leads to the selection of more educated, middle-aged unemployed individuals with shorter previous experience of unemployment, which somewhat undermines the overall impact of the programme. Within-group creaming off is difficult to avoid and remains a challenge. Considering existing knowledge, this could be attributed to the powerful voice of employers in this measure when the programme is rather modest in scope, and/or insufficiently generous towards those disabled people who suffer additional disadvantages. Because we know that targeted ALMP measures were more effective in engaging more disadvantaged jobseekers during the COVID-19 pandemic (see next paragraph), we conclude that creaming off is a long-standing problem.

Two trends were apparent in the development of Czech ALMP, including wage subsidies, in the period 2015-2020: a reduction in the total number of participants and (in connection with this) better targeting of measures at more disadvantaged workers (Hora et al., 2021). This could contribute to more positive net outcomes. However, the findings should be generalised with caution, as the placement of participants in the 2019-2021 programme was also affected by the impact of the COVID-19 pandemic, when employers were less willing to recruit new workers, both for regular and subsidised jobs. Nevertheless, our conclusions are consistent with those of previous studies. A further limitation of our study is that we did not examine the role of policy design, such as the generosity of the subsidy, or the role of the labour market context at the individual level.

Several policy implications can be drawn. Wage subsidies are effective in the short run and the long run for unemployed people with disabilities or health conditions, in particular those with lower education, in terms of their integration into the open labour market. They should therefore be used more extensively. Furthermore, creaming off candidates for wage subsidy programmes from within the group of people with disabilities or health conditions should be avoided. This implies, among other facilitators, a sufficient availability of ALMP measures for this group and increased generosity of the measure towards the most disadvantaged job-seekers with disabilities.

The primary contribution of this study is an evaluation of the net effects of the wage subsidy programme on the integration of people with disabilities or health conditions into the open labour market when compared to healthy people, from the perspective of the capability approach. The second contribution is the examination of factors that affect the effectiveness of the programme, such as severity of disability, level of education and targeting of the measure on specific categories of jobseekers. Although this is a single-country study, we believe that the comparisons of the effects across categories of jobseekers may be generalised because they seem consistent with existing research on the effectiveness of wage subsidies. Further research is needed to explore the role of the design and implementation of the measure in focus, specifically for people with disabilities, as well as the role of structural factors.

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ANNEX: TABLES

Table A1

Descriptive characteristics of variables used in CEM

Variables	Categories	Population of the unemployed – 2019	Programme participants (matched sample only)
Region	Prague	10.6	1.6
	Central Bohemia	9.7	12.9
	South Bohemia	5.6	2.4
	Plzeň/Pilsen reg.	4.7	2.7
	Karlovy Vary reg.	2.9	1.9
	Ústí nad Labem reg.	10.5	19.2
	Liberec reg.	4.6	4.7
	Hradec Králové reg.	4.4	4
	Pardubice reg.	4.2	4.2
	Vysočina/Highlands	4.5	4.3
	South Moravia	12.5	14
	Olomouc reg.	6.3	8
	Zlín reg.	4.9	8
Local unemployment rate (percent)	Moravia-Silesian reg.	14.6	12.2
	U 1.00-4.20	77.2	68.9
	U 4.21-5.10	8.5	9.7
	U 5.11-6.10	8.7	14.8
Gender	U 6.11+	5.7	6.7
	Men	49.6	30.5
	Women	50.4	69.5
Age groups	15-24 years	15.3	15.7
	25-34 years	23.8	18.8
	35-44 years	22.3	25
	45-54 years	19.8	16.8
	55+ years	18.8	23.8
Education	Elementary	25.9	18.8
	Vocational	36.4	36.5
	High school	26.1	35.3
	University	11.5	9.3
Health status	Healthy	72.2	68.2
	Health conditions	15.7	19
	Disabilities	12	12.8
No of previous U spells	None	19.9	18.3
	1-4 spells	45.7	32
	5+ spells	34.3	49.7
Unemployment duration (history)	0 days	19.9	18.3
	1-89 days	7.7	3.4
	90+ days	72.4	78
Employment for UI duration (history)	0-359 days	34.2	30.7
	360 + days	65.8	69.3
Total (N)		475,478	2,050

Source: Data OK Práce (2019).

Table A2

Wage subsidy programme: competing risks probabilities for selected time points

Estimates at time points:		210 days		420 days		600 days	
Intervention groups		Prob.	St.error	Prob.	St.error	Prob.	St.error
Healthy	found work	0.058	0.006	0.059	0.006	0.059	0.006
	personal/family reasons	-	-	-	-	-	-
	Sanctions	0.004	0.002	0.004	0.002	0.004	0.002
	unknown/not specified	0.003	0.001	0.006	0.002	0.007	0.002
Health condition	subsidised workplaces	0.924	0.007	0.928	0.007	0.928	0.007
	found work	0.037	0.010	0.047	0.011	0.052	0.012
	personal/family reasons	-	-	-	-	-	-
	Sanctions	0.008	0.005	0.010	0.005	0.010	0.005
Disability	unknown/not specified	0.005	0.004	0.010	0.005	0.010	0.005
	subsidised workplaces	0.919	0.014	0.919	0.014	0.919	0.014
	found work	0.050	0.014	0.058	0.015	0.062	0.016
	personal/family reasons	-	-	-	-	-	-
Disability	Sanctions	0.004	0.004	0.004	0.004	0.004	0.004
	unknown/not specified	0.000	0.000	0.012	0.007	0.012	0.007
	subsidised workplaces	0.919	0.017	0.919	0.017	0.919	0.017
Control groups		Prob.	St.er	Prob.	St.er	Prob.	St.er
Healthy	found work	0.395	0.013	0.450	0.014	0.467	0.014
	personal/family reasons	0.027	0.005	0.032	0.005	0.033	0.005
	Sanctions	0.134	0.009	0.159	0.010	0.166	0.010
	unknown/not specified	0.203	0.011	0.239	0.012	0.249	0.012
Health condition	subsidised workplaces	0.011	0.003	0.021	0.004	0.029	0.005
	found work	0.226	0.025	0.281	0.027	0.316	0.027
	personal/family reasons	0.007	0.005	0.014	0.007	0.017	0.008
	Sanctions	0.097	0.018	0.125	0.020	0.128	0.020
Disability	unknown/not specified	0.226	0.025	0.292	0.027	0.323	0.028
	subsidised workplaces	0.014	0.007	0.035	0.011	0.042	0.012
	found work	0.285	0.030	0.353	0.032	0.376	0.033
	personal/family reasons	0.005	0.005	0.005	0.005	0.014	0.008
Disability	Sanctions	0.063	0.016	0.081	0.018	0.086	0.019
	unknown/not specified	0.226	0.028	0.299	0.031	0.330	0.032
	subsidised workplaces	0.000	0.000	0.005	0.005	0.009	0.006

Source: Data OK Práce 2019.

Table A3

Wage subsidy programme: the participant structure and targeting indexes

	No health problems			Health condition (medical disadvantage)			Disability (partial/full)			Health problems in total		
	% P	% U	Index	% P	% U	index	% P	% U	index	% P	% U	index
Female	70.1	50.2	1.40	65.2	50.6	1.29	54.9	51.4	1.07	60.6	50.9	1.20
Male	29.9	49.8	0.60	34.8	49.4	0.70	45.1	48.6	0.93	39.4	49.1	0.80
15-24 years	19.9	18.6	1.07	4.7	6.9	0.68	3	2.4	1.25	4	5	0.80
25-39 years	40.8	41.3	0.99	16.3	19.3	0.84	17.5	11.6	1.51	16.9	16.1	1.05
40-49 years	18	21.6	0.83	24.4	25.1	0.97	20.7	21.2	0.98	22.8	23.5	0.97
50-59 years	16.9	13.8	1.22	44.6	32.8	1.36	46.9	42.3	1.11	45.6	36.8	1.24
60+ years	4.3	4.6	0.93	10.1	15.9	0.64	11.9	22.5	0.53	10.9	18.7	0.58
ISCED 0-2	17.3	24.7	0.70	20.8	33.7	0.62	13.5	25.3	0.53	17.5	30.2	0.58
ISCED 3-4	65.8	61.3	1.07	72.5	62.1	1.17	80.5	70.7	1.14	76.1	65.8	1.16
ISCED 5-8	17	13.9	1.22	6.7	4.1	1.63	6	4	1.50	6.4	4.1	1.56
Current U only	24.9	21.1	1.18	12.2	13	0.94	13.1	12.9	1.02	12.6	13	0.97
1-3 previous U spells	42.2	38.1	1.11	39.3	33	1.19	38	36.9	1.03	38.7	34.6	1.12
4+ previous U spells	32.9	40.8	0.81	48.5	54	0.90	48.9	50.1	0.98	48.7	52.3	0.93
Short-term U (up to 12 months)	26.6	28.2	0.94	17.7	15.3	1.16	20.3	17.8	1.14	18.8	16.3	1.15
Long-term U (12+ months)	48.5	50.7	0.96	70.1	71.7	0.98	66.6	69.3	0.96	68.5	70.7	0.97
Total (100%)	1,884	410,486	X	615	88,745	x	497	65,107	x	1,112	153,852	x

% P = the percentage of participants (with no health problems/with a health condition/with a disability) as a proportion of the total number of participants

% U = the percentage of unemployed individuals (with no health problems/ with a health condition/with a disability) as a proportion of the total number of unemployed individuals

Index of targeting measures = % P / % U

Source: Data OK Práce 2019.

Sažetak

INTEGRACIJA OSOBA S INVALIDITETOM U OTVORENO TRŽIŠTE RADA: KAKO SUBVENCije ZA PLAĆE MOGU POMOĆI? ISKUSTVO IZ REPUBLIKE ČEŠKE

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Ovaj članak analizira djelotvornost programa subvencioniranja plaća u integriranju osoba s invaliditetom u otvoreno tržište rada u Češkoj. Teorijski, članak se temlji na pristupu sposobnosti i koristi kontrafaktualnu metodu. Program subvencije plaća ima značajniji učinak na osobe s invaliditetom nego na zdrave sudionike, i bolji je za slabije obrazovane sudionike s invaliditetom u usporedbi sa sudionicima viših razina naobrazbe. Pretpostavljamo da je to posljedica kombinacije utjecaja na skup sposobnosti osoba s invaliditetom na tržištu rada: učinak probira, učinak obuke na radnom mjestu i učinak integracije na radnom mjestu. Međutim, teško je izbjeći selektivan odabir unutar skupine: prioritet u uključivanju u program daje se obrazovanijim i deprivilegiranim podskupinama osoba s invaliditetom, što umanjuje njegov cjelokupni učinak.

Ovi nalazi ukazuju na to da treba proširiti program subvencije plaća za nezaposlene osobe s invaliditetom u svrhu podrške njihovoj integraciji na otvoreno tržište rada. Tvorci političkih mjera i programa trebali bi sprečavati selektivni odabir među tim kandidatima.

Ključne riječi: osobe s invaliditetom, integracija u otvoreno tržište rada, subvencije plaća, ocjena političkih mjera, Republika Češka.