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# ABSTRACT

# Wage Subsidies and Hiring Chances for the Disabled: Some Causal Evidence*

We evaluate the effectiveness of wage subsidies as a policy instrument to integrate disabled individuals into the labour market. To identify causal effects, we conduct a large-scale field experiment in Belgium. Our results show that the likelihood of a disabled candidate receiving a positive response to a job application is not positively influenced by revealing entitlement to the Flemish Supporting Subsidy.

## NON-TECHNICAL SUMMARY

In our study, we conduct a large-scale field experiment to evaluate the effectiveness of wage subsidies in terms of integrating the disabled into the labour market. Two applications for male graduates, identical except that one reveals a disability, are sent out to 768 vacancies in the Flemish labour market. In addition, we alternate between pairs in which the disabled candidate also mentions entitlement to a wage subsidy, the Flemish Supporting Subsidy, amounting to between 20% and 40% of the total wage cost, and pairs in which the disabled candidate does not. Monitoring the subsequent call-back learns that the likelihood to receive a positive response to a job application, being a disabled candidate, is not influenced by revealing wage subsidy entitlement.

JEL Classification: I38, J14, J78

Keywords: labour market policy evaluation, wage subsidies, disability, discrimination

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# 1 Introduction

Labour market thresholds related to employee productivity and employer prejudices translate into substantially lower employment probabilities, working hours and job stability for the disabled (see, e.g., OECD, 2010; Polidano and Vu, 2013; Webber and Bjelland, 2013; Baldwin and Marcus, 2014; Michael et al., 2014).[1] Given the costs associated with their unfavourable outcomes – costs at both the individual and the societal levels – it is not surprising that integrating the disabled into the labour market is a key ambition of many OECD countries (OECD, 2010).

One instrument used by some countries to tackle the problem of high unemployment among the disabled is wage subsidies. Following classical economic assumptions, wage subsidies make disabled employment cheaper; therefore, one could expect a positive effect of these subsidies on the hiring chances of the disabled. However, at the same time, employers may perceive these subsidies as a signal of lower productivity – they may perceive disabled individuals who disclose this entitlement as "severe cases".

The empirical evaluation of wage subsidies aimed at integrating the disabled into the labour market has received little attention in the economic literature. Indeed, we are aware of only two studies in this context. First, Datta Gupta and Larsen (2010) evaluated the Danish Flexjob scheme, which entitles employers to a subsidy of one-third to two-thirds of the wage they pay to disabled workers. To this end, they used variation arising from the introduction of the scheme: the labour market outcomes of the target group were compared with those of a control group of closely matched ineligible workers. Although Datta Gupta and Larsen (2010) found a substantial positive employment effect of the scheme, they note that they are unsure about whether this effect could be interpreted as causal, as subsidised jobs in the analysed period may have been granted to relatively "more able" disabled persons. Second, contemporaneous with our

[1] In addition, hourly wages and training opportunities are also lower among disabled employees (see, e.g., Ettner et al., 1997; Campolieti and Krashinsky, 2006; Baldwin and Marcus, 2007; Schur et al., 2009; Singleton, 2012).

study, Deuchert and Kauer (2013) conducted a field experiment in which disabled participants were asked to write (real) application letters to vacancies in Switzerland. Entitlement to a training grant (providing a maximum of 180 days of full wage subsidy) was randomly disclosed in these applications. Overall, their results reveal that this instrument is ineffective. Although the methodology applied by these authors is quite innovative, the results they present are not very insightful because only 51 individuals participated in the experiment, sending out 7.5 applications on average, resulting in fixed-effects estimations with very large standard errors.

In our study, we conduct a large-scale field experiment to evaluate the effectiveness of wage subsidies in terms of integrating the disabled into the labour market. More concretely, we use a correspondence experiment to test whether revealing entitlement to a Belgian wage subsidy enhances the likelihood of disabled persons receiving a positive response to a job application. Two applications for male graduates, identical except that one reveals a disability, are sent out to 768 vacancies in the Flemish labour market.[2] In addition, we randomise over pairs in which the disabled candidate also mentions entitlement to a wage subsidy, the Flemish Supporting Subsidy, amounting to between 20% and 40% of the total wage cost, and pairs in which the disabled candidate does not. Monitoring the subsequent call-back enables us to identify heterogeneity in the unequal treatment of disabled and non-disabled applicants by wage subsidy entitlement disclosure. In addition, these data allow us to contribute to the literature on disability discrimination in general by showing how this discrimination varies with policy-relevant variables, such as education status, application extensiveness, employer characteristics and contract modalities.[3]

This article is structured as follows. In the next section, we describe the modalities of the Flemish Supporting Subsidy. In Section 3, we provide some information on how the experimental data were obtained. Subsequently, in

[2] Flanders is the northern, Dutch-speaking part of Belgium.

[3] See, e.g., Ravaud et al. (1992), Gras et al. (1996), Magee (2004), MacRae and Laverty (2006), Gannon and Munley (2009), Drydakis (2010) and Baldwin and Choe (2014) for evidence on labour market discrimination against disabled persons in France, the Netherlands, Canada, Scotland, Ireland, Greece and the United States.

Section 4, we present and discuss the statistical analysis of the resulting dataset to answer our research question. A final section concludes.

## 2 Institutional Context

In this article, we aim to identify the effect of revealing entitlement to the Flemish Supporting Subsidy (FSS) on the hiring chances of disabled individuals. This subsidy, granted (and paid) by the Public Employment Agency of Flanders, aims to integrate disabled persons into the labour market. Entitlement to this subsidy can be claimed by the disabled based on (i) leaving school after special secondary education, (ii) the recognition of the disability by the Belgian Federal Public Service Social Security, (iii) the judgement by the Flemish Agency for the Disabled of their disability as justifying a wage subsidy and (iv) the judgement by the Public Employment Agency of their disability as justifying a wage subsidy. The FSS is then granted after a meeting with a case worker of the Public Employment Agency at which the claim is proven. Consultation with the staff of three Flemish organisations supporting disabled people in school and the labour market (GTB Gent vzw, Cursief vzw and UBCO) reveals that the FSS is in principle assigned for all substantial mental, psychological or physical disabilities, including those revealed in the fictitious applications in our experiment (blindness, deafness or autism). Therefore, within the context of our experiment, the subsidy is in no way a reflection of the severity of the disability.

Employers who recruit a worker granted the FSS can request the wage subsidy using an online form at the website of the Public Employment Agency. This subsidy is then automatically paid over a five-year period. The amount of the premium is calculated based on the salary of the employee and the time elapsed since the employee's recruitment by the employer. During the first five quarters of the contract, the subsidy is 40% of the total wage cost (gross wage plus social security contributions), upper bounded by twice the average minimum wage in Belgium (e.g., 2 × 1502 euro in 2014). From quarter 6 to quarter 9, the subsidy amounts 30% of the total wage cost, it is 20% thereafter.

After the approval of the subsidy, the employer may claim higher percentages (up to 60%) of wage subsidy if the employer can successfully argue that the standard subsidy does not compensate for the lower productivity of the disabled employee. After five years, an employer can apply for an extension of another five years (with a subsidy of, in principle, 20% of the gross wage) if he can successfully argue that the disability of the employee still results in a productivity loss. As long as the employee remains employed with the employer under concern, this employer can continue to extend the premium. Both increases and extensions of the wage subsidy are approved based on the advice of an expert sent to the workplace by the Public Employment Agency.

# 3 Data

## 3.1 Measuring Unequal Treatment by a Correspondence Test

Correspondence experiments to test for hiring discrimination on such grounds as ethnicity, gender, beauty and sexual orientation have been extensively used and refined during the last decade (see, e.g., Bertrand and Mullainathan, 2004; Petit, 2007; Rooth, 2009; Drydakis, 2009; Baert et al., Forthcoming). Within these field experiments, pairs of fictitious written job applications are sent to real job openings. The two applications within each pair are similar except for the single characteristic that is to be tested. By monitoring the subsequent call-back, i.e., the reaction from the employer side, unequal treatment based on this characteristic can be identified.

These field experiments have been widely viewed as providing the most convincing evidence of unequal treatment in hiring decisions (Riach and Rich, 2002). Without the use of such experimental data, researchers possess far less data than employers do. Employees that appear similar to researchers based on standard non-experimental data may look very different to employers. Using a correspondence test, selection on the basis of individual unobservable characteristics is eliminated because all of the information received by the

employer is controlled by the researcher. In this way, strict equivalence between fictitious applicants is ensured, and employer discrimination is disentangled from alternative explanations of differential hiring rates, such as differential employee preferences and network effects.

Our experiment was conducted from October 2012 to March 2013 in Flanders. Two applications, identical except that one revealed a disability, were sent out to 768 vacancies. Blindness, deafness and autism each represented one-third of the disabilities revealed. We selected vacancies for which the disabled candidate could be expected, based on the vacancy information, to be as productive as his non-disabled counterpart, possibly after reasonable (and fully subsidised) adjustments in the workplace. In addition, entitlement to the Flemish Supporting Subsidy was randomly disclosed in the applications of the disabled individuals. In what follows, we describe the vacancy selection, the construction of the fictitious job applications and the monitoring of employers' reactions. We end with an overview of the limitations of our design.

## 3.2 Selection of the Vacancies

All vacancies were taken from the database of the Public Employment Agency of Flanders, which is the major job search channel in Flanders. From this database, we randomly selected vacancies of private employers requiring no relevant work experience and for which the disabled candidates could be expected to be as productive as candidates without a disability, possibly subject to limited (and fully subsidised) adjustments to the workplace (such as a Braille keyboard for the computer, interpreter hours or the accommodation of a guide dog). The occupations to which the fictitious applications were sent were chosen after consultation of the staff of the three aforementioned Flemish organisations supporting disabled people in school and the labour market.

More concretely, we selected the moderately skilled occupations of administrative clerk and teleseller and highly skilled occupations of accountant and informatician when one of the candidates was blind. We chose the moderately skilled occupations of electrician and carpenter and the highly skilled occupations of chemist and informatician when one of the candidates was deaf.

We lastly chose the moderately skilled occupations of administrative clerk and carpenter and the highly skilled occupations of accountant and informatician when one of the candidates was autistic.

We screened the vacancies we found for the aforementioned occupations on elements in the job that lead to a lower productivity for the disabled candidate, even in the case of limited adjustments to the workplace. Such vacancies were ignored.

## 3.3 Construction of Fictitious Applications

We created two template types (Type A and Type B) of resumes and cover letters for each of the occupations listed in Section 3.2, matching the general requirements of these occupations. The Type A and Type B applications were, at the level of the occupation, identical in all job-relevant characteristics but differed in inessential details and lay-out. Several example applications of the Public Employment Agency of Flanders, with different fonts and layouts, were used and calibrated for our purposes to ensure that our applications were realistic and representative.

All fictitious applicants were single males born, living and studying in comparable suburbs of Antwerp or Ghent, the two largest cities of Flanders. The candidates applying for the moderately skilled (highly skilled) positions were 18 (21) years old. The candidates for moderately skilled (highly skilled) positions held a relevant secondary (tertiary) education certificate, which was equal within each pair. All of the Type A and Type B applicants had graduated from the same type of school, with a comparable reputation, in June 2012.

In addition, we added to all applications the following features: Belgian nationality, Dutch mother tongue, adequate French and English language skills, computer skills and summer employment experience. The cover letters indicated a person who was highly motivated and highly organised. For the highly skilled candidates, sports club membership and student leadership were also added. We lastly appended a fictitious postal address (based on real streets in middle-class neighbourhoods) and a date of birth to all applications. The resume and cover letter templates are available upon request.

We sent two applications, one Type A and one Type B, to each selected vacancy. For one member of each pair, a disability was revealed. A credible mention was composed in collaboration with the three aforementioned Flemish organisations supporting disabled people. One third of the disabled candidates revealed blindness by means of the following clause in their cover letter: “In view of a job interview, I want to report that I am a blind. Therefore, I am always accompanied by a guide dog. However, my disability does not make me less productive.” In the resume, this clause was repeated, and the technological tools used by the disabled applicant were referred to. Another third of the disabled candidates revealed deafness by the following clause: “As you can read in my resume, I am deaf. Do not let this put you off. I am a very good lip reader, and I have learned to find creative solutions in all sorts of situations. During a job interview, I will be accompanied by an interpreter.” In the resume, this clause was repeated, and fully subsidised interpreter hours were referred to. A last third of the disabled candidates revealed autism by the following clause: “In view of a job interview, I would like to report that I am a person with autism and thus someone who benefits from regularity and structure, but this certainly does not mean that I do not love challenge in my work.” In the resume, this clause was repeated.

In addition, to answer our main research question, half of the disabled applicants revealed entitlement to the Flemish Supporting Subsidy. The other half of the disabled candidates did not mention any subsidy. More concretely, to obtain comparable vacancy characteristics for each half, we alternated, at the level of the particular disability and occupation, between pairs in which the disabled candidate did not mention the subsidy and pairs in which the disabled candidate mentioned subsidy entitlement. The wage subsidy was revealed using the following clause in both the candidate’s cover letter and resume: “In addition, my employer is entitled to a FSS. That is, my employer receives a premium from the Public Employment Agency every three months. The amount of this contribution can be found here: http://www.vdab.be/arbeidshandicap/wgvop.shtml”.

The reader might note that another option would have been to send three applications to each vacancy (from a non-disabled candidate, a disabled candidate not disclosing wage subsidy entitlement and a disabled candidate disclosing

subsidy entitlement). In this way, we would have been able to compare the impact of revealing entitlement to the Flemish Supporting Subsidy at the individual vacancy level. However, we believe that sending three matched applications, among which two were from disabled candidates, to the same employer would have substantially increased the risk of detection of the experiment. Moreover, if the vacancy characteristics are comparable for the cases in which the disabled candidate discloses entitlement to the subsidy and those in which no subsidy is mentioned, which is by construction the case for an infinite sample, we can draw the same conclusions based on our design. We come back to this issue at the start of Section 4.3.

## 3.4 Measurement of Call-back

We registered two email addresses and mobile phone numbers: one for the non-disabled individuals and one for the disabled individuals. All applications were sent to the employer by email. To avoid detection, we applied to no more than one vacancy from the same employer.

Call-backs were received by telephone voicemail or email. The content of the responses is available upon request. Because we included postal addresses with non-existent street numbers in the applications, we could not measure call-back by regular mail. However, several human resource managers confirmed that employers rarely, if ever, invite job candidates to selection interviews by regular mail. To minimise inconvenience to the employers, we immediately declined invitations to job interviews. All call-backs received longer than 30 days after sending out the applications were discounted (however, this turned out to be an unnecessary restriction because we did not receive any positive call-back after 30 days).

In our analysis, we distinguish between two definitions of positive call-back. Positive call-back sensu stricto means that the applicant is invited for an interview concerning the job for which he applied. Positive call-back sensu lato includes, in addition to the former definition, the receipt of an alternative job proposal and the request to provide more information or to contact the recruiter.

## 3.5 Research Limitations

Before reporting and discussing the results of our research, we mention four limitations of our research design. For an in-depth discussion of the strengths and weaknesses of correspondence tests, see Bertrand and Mullainathan (2004), Pager (2007) and Riach and Rich (2002). For an elaboration on the ethical aspects of this type of field experiment, see Riach and Rich (2004).

First, our design can be effective only in demonstrating unequal treatment in the initial stage of the selection process. Because we simply measure call-backs for first interviews, we cannot translate our research results into divergences in job offers, let alone divergences in wages. However, Bertrand and Mullainathan (2004) argue that to the extent that the selection process has even moderate friction, one would expect that reduced interview rates would translate into reduced job offers and lower earnings.

Second, we test for unequal treatment only within the chosen occupations and only within the vacancies posted on the VDAB database. It is possible that unequal treatment based on disability and wage subsidy entitlement is more (or less) apparent in sectors other than those covered and is more (or less) apparent among employers who rely on other channels (such as social networks) for filling their vacancies.

Third, although we aimed to select vacancies for which the disabled candidates could be expected to be as productive as candidates without a disability, the jobs for which these vacancies are posted may still feature tasks for which the disabled candidates are less productive. Therefore, unequal treatment of disabled candidates might be due to productivity-related factors instead of to discrimination. However, it is important to keep in mind that we are especially interested in the relationship between discrimination against the disabled candidates and wage subsidy entitlement. As this limitation causes, by construction, a similar shift in the discrimination measures for applications with and without a mentioned subsidy, our main research conclusions remain valid. The same is true for the second research limitation.

Fourth, in line with the literature, we give no direct indication of the non-disabled candidate's ability. Therefore, the non-disabled applicant in our

experiment could also be a disabled applicant not disclosing his disability. The comparison of "disabled" candidates to "non-disabled" candidates in our framework is therefore actually a comparison of "openly disabled" candidates and candidates with an unrevealed ability level. As a result, this comparison in fact captures the costs associated with disclosing disability. The same reasoning is valid when comparing disabled candidates who do and do not mention their entitlement to the Flemish Supporting Subsidy.

# 4 Results

In this section, we begin by describing our experimentally gathered data and providing the reader with some general statistics about unfavourable treatment of the fictitious disabled candidates. Thereafter, we answer our main research question by means of a statistical examination of these data. We present positive call-back rates by disability and subsidy entitlement status for the total sample and for some relevant subsamples. We also conduct a regression analysis to identify the independent effect of revealing a wage subsidy on the probability of positive call-back. The latter analysis allows us to control for application type and vacancy fixed effects on the one hand and variables that may correlate with the disability and subsidy entitlement status of the fictitious candidates on the other hand due to the finite size of our dataset.

## 4.1 Data Description

Table 1 describes our dataset. Panel A shows that, overall, in 210 of the 768 vacancies at least one candidate received a positive call-back sensu lato, i.e., any positive reaction. In total, 76 cases resulted in an invitation for both the non-disabled candidate and the disabled candidate, 114 cases in a positive call-back for only the non-disabled candidate and 20 for only the disabled candidate.

The net discrimination rate is then calculated by subtracting the number of applications for which the disabled candidate was preferred from the number of

applications for which the non-disabled candidate was preferred and dividing by the number of application pairs in which at least one received a positive call-back. The result is a net measure of the number of discriminatory acts a disabled applicant could expect to encounter per application for which at least one candidate received a positive call-back. Overall, the net discrimination rate is 0.45 when adopting the broad definition of positive call-back. A standard $\chi^2$ test of the hypothesis that the non-disabled and disabled candidates were treated unfavourably equally often is rejected at the 1% significance level. The corresponding statistic for the sensu lato definition of positive call-back, i.e., any positive reaction, as presented in Panel B, is 0.47 (also significantly different from 0 at the 1% level).

**TABLE 1 ABOUT HERE**

Based on the information provided in the first columns of Table 1, we can also compute an alternative measure for unequal treatment, i.e., the positive call-back ratio. This ratio is calculated by dividing the percentage of applications for which non-disabled candidates received a positive call-back (24.74% following the sensu lato definition,[4] 14.71% following the sensu stricto definition) by the corresponding percentage for disabled candidates (12.50% and 6.90%, respectively). The resulting sensu lato positive call-back ratio is 1.98, indicating that the non-disabled candidates in our experiment received approximately twice as many positive reactions as their disabled counterparts. The sensu stricto positive call-back ratio is 2.13. Both ratios are significantly different from 1 at the 1% significance level.

Based on these statistics, we conclude that there is evidence of unequal treatment against disabled job candidates in the Flemish labour market. However, it is unclear whether this unequal treatment can be labelled as discrimination. This would be the case if this unequal treatment were not based on productivity-related arguments to the detriment of the individual disabled candidates.

[4] 24.74% = (76+114)/768.

Although we only selected vacancies for which, based on the content of the vacancy, disabled candidates could be expected to be as productive as non-disabled candidates, it is still possible that (as not all information about the job is posted in the vacancy) the disabled candidates are in fact still less productive than their non-disabled counterparts. However, in this case, one could expect employers to be honest about this. To check this, we looked into the raw data for the reasons employers gave when the non-disabled candidate received a positive call-back (in the broad sense) and the disabled candidate did not. We see that only in approximately 9% of these situations did the employer act as we would expect in the case of no discrimination, namely, mentioning the disability as the reason for non-invitation. In 64% of the cases in which the non-disabled was invited and the disabled candidate was not, there was no reaction at all. In 3%, there was a reaction but no explanation. Other reasons mentioned are a mismatch with the job profile (10% of the cases), a lack of experience (9%), the fact that the vacancy is already filled (4%) and the distance between the candidate's living place and the workplace (1%). It is clear that the latter reasons are not honest because, by construction, the disabled and the non-disabled candidate have the same characteristics.

In Panel C and Panel D of Table 1, the dataset is broken up by whether the disabled candidate within the pair of fictitious applications revealed entitlement to a wage subsidy. Following either the sensu lato or the sensu stricto definition of positive call-back, we obtain net discrimination rates and positive call-back ratios that are (slightly) more to the detriment of the disabled when they reveal entitlement to a wage subsidy. These descriptive statistics provide a first indication of a non-positive effect for the disabled candidate of revealing a wage subsidy when applying for a job. Whether this effect is significantly less than 0 is the focus of our main analyses, which are discussed in the next two subsections.

## 4.2 Positive Call-back by Disability and Subsidy Entitlement Disclosure

Table 2 and Table A.1 in Appendix A present our main research results. In these tables, we compare the positive call-back rates (sensu lato and sensu stricto,

respectively) for non-disabled candidates, disabled candidates not mentioning a wage subsidy and disabled candidates mentioning a wage subsidy. We do this using both the total dataset and various breakdowns of the dataset by relevant employee and employer characteristics.

**TABLE 2 ABOUT HERE**

In the second column of Table 2 and Table A.1, we report the positive call-back ratio comparing the non-disabled and disabled candidates regardless of their subsidy entitlement disclosure. Based on this column, we conclude that unequal treatment to the detriment of disabled candidates is prevalent regardless of the candidates' specific disclosed disability, their education status and the extensiveness of their application. Furthermore, we find highly significant evidence for unequal treatment in all categories if we break down the experimentally gathered data by the job posting agent, the contract type of the posted job, the gender of the contact person mentioned in the posted job and the distance between the candidate's living place and the workplace.

In the fourth and sixth columns of Table 2 and Table A.1, we provide the reader with the positive call-back ratios based on the call-back rates of the non-disabled candidates on one hand and the disabled candidates without and with a wage subsidy, respectively, on the other hand. The fourth column shows highly significant evidence for unequal treatment between non-disabled candidates and disabled candidates without a wage subsidy for almost all breakdowns of the dataset. Furthermore, the sixth column shows the same pattern when comparing non-disabled candidates and disabled candidates disclosing their entitlement to a wage subsidy.[5] A first exception to this pattern are the positive call-back ratios

[5] The reader might be puzzled by the fact that the statistics presented in the fourth and sixth columns in Panel A of Table 2 and Table A.1 are not the same as those presented in the ninth column of Panel C and Panel D of Table 1. This is due to the fact the former statistics are obtained by comparing the disabled candidates without or with a wage subsidy with all non-disabled candidates (768 individuals), while the latter statistics are obtained by only accounting for the non-disabled candidates who applied for the same

sensu stricto for the subdataset of observations gathered from fictitious application pairs in which the disabled candidate revealed blindness as a disability. The explanation for the lack of a finding of positive call-back ratios that are highly significantly different from 1 for this group is that for these observations, the probability of positive call-back sensu stricto was very low for both non-disabled (0.09) candidates and disabled candidates (0.02 for those revealing no wage subsidy and 0.05 for those revealing a subsidy).[6] Thus, the standard errors for the related positive call-back ratios are quite high. Second, because the fraction of vacancies that announced a temporary contract was rather small (14.06%), we obtain (higher standard errors and ipso facto) lower levels of significance for the positive call-back ratios comparing disabled and non-disabled (with or without wage subsidy entitlement disclosure) candidates for this type of vacancy.

Last and most importantly, in the eighth column of Table 2 and Table A.1, we compare the call-back chances of a disabled candidate not mentioning a wage subsidy and a disabled candidate mentioning a wage subsidy. A positive call-back ratio lower (higher) than 1 indicates that those disclosing a (no) entitlement to the Flemish Supporting Subsidy are treated favourably. Panel A of both tables shows that the positive call-back ratio is 1.00 when using the broad definition of positive call-back and 1.30 when using the narrow definition. Neither ratio is significantly different from 1, leading us to conclude that neither profile is preferred over the other.[7] We find the same pattern when inspecting the same statistic for the subdatasets except for two observations. First, we obtain statistics that are

vacancies as the disabled candidates under concern (384 individuals).

[6] As should be clear based on Section 3, we do not randomise over the particular disability disclosed due to our aim of selecting occupations for which the disabled candidates could be expected to be as productive as the non-disabled candidates. Thus, the low positive call-back rates for both the fictitious disabled and non-disabled candidates in the pairs comprising a blind candidate seems to only be a reflection of the lower positive call-back rates in the occupations (in general or for our profiles of graduates in particular) we selected when applying with these pairs (accountant, informatician, administrative clerk and teleseller).

[7] The fact that 1.30 is not significantly different from 1 is related to the low interview invitation rate among the disabled candidates (6.90%).

weakly significantly more to the detriment of disabled candidates (not) disclosing their entitlement to the wage subsidy if the contact person mentioned in the posted job is female (male). Second, we find that those mentioning a wage subsidy have weakly significantly lower job interview invitation rates for jobs offering a temporary contract. This finding can be explained by the fact that these contracts are on average rather short, such that beginning the administrative process to receive the wage subsidy is not appealing to employers. However, it is clear that this statistic is driven by the low number of vacancies posted by an interim office in our dataset (10.22% of the vacancies).

A possible explanation for our main result is, as described by Deuchert and Kauer (2013), that the financial incentive implied by the Flemish Supporting Subsidy is at least offset by the fact that mentioning this subsidy focuses additional employer attention on (the severity of) the disability. The wage subsidy may thus lead, in other words, to a perception of lower productivity.[8] Another explanation, suggested by policy-makers confronted with our research results, is employers' fear of red tape. A final explanation is that the labour market might be dominated by two types of employers: a first type that is ready to consider the hiring of a disabled worker regardless of their wage subsidy entitlement and a second type that is not ready to do this. This brings us back to the first research limitation mentioned in Section 3.5, as the first type of employers might take the potential wage subsidy into account during a later stage of the hiring process.

## 4.3 Regression Analysis

As, by construction, we randomised over the disclosure of the entitlement to the Flemish Supporting Subsidy by the disabled applicants, regressing positive call-back at the individual application level on disability and subsidy disclosure on the one hand and employer and employee characteristics on the other hand should lead to the same conclusion for a sample size approaching infinity.[9] However, our

[8] The reader will notice that this perception is, in fact, a misperception, as wage subsidy entitlement is not related to the severity of the disability, at least for blind, deaf and autistic people (see Section 2).

[9] The same is true for an infinite sample if the vacancy characteristics are comparable for

sample size is finite. Thus, some variables that may determine the level of unequal treatment of disabled and non-disabled may happen to correlate with the subsidy entitlement status of the disabled fictitious candidates.

Table 3 presents our benchmark regression results. In the benchmark models, we regress the probability of positive call-back sensu lato on various sets of key and control variables by means of a linear probability model with resume type fixed effects. The control variables are adopted both in interaction with the disability status of the candidate and without interaction (except for variables that are constant at the resume type level and are therefore controlled by our fixed-effects estimations or variables that are only relevant for the disabled candidate, such as disability type and wage subsidy entitlement disclosure). For reasons of comparability of the regression results, except for "disability", all variables are normalised by subtracting their mean among the subpopulation of disabled candidates.

First, in regression (1), we only include the disability status as an explanatory variable. We find that revealing a disability lowers the chance of a positive reaction by approximately 12 percentage points. This outcome agrees with the difference between the positive call-back rates among disabled and non-disabled candidates mentioned in Section 4.1.

Second, in regression (2), we interact the indicator for disabled individuals with an indicator for wage subsidy entitlement disclosure. We find that the regression coefficient for this interaction term is a non-significant 0.00, indicating that fictitious disabled applicants who disclosed their wage subsidy entitlement were as likely to receive a positive reaction from the employer side as disabled applicants who did not mention the wage subsidy.

Third, from regression (3) onwards, we include variables over which wage subsidy disclosure is, by construction, perfectly randomised: interaction dummies

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those vacancies to which we sent a disabled candidate not mentioning a wage subsidy and those to which we sent a disabled candidate disclosing wage subsidy entitlement. In our case, t-tests show that we cannot reject that the composition of the vacancies is equal across these two groups in terms of job posting agent, contract type, gender of the contact person mentioned in the vacancy and distance between working place and living place.

between the particular disability type and occupation for which the candidate applied. As a result, the regression coefficients for disability and wage subsidy entitlement disclosure are identical to those of regression (2). In addition, we observe that unequal treatment is most to the detriment of deaf candidates applying for the occupation of informatician and the occupation of electrician and autistic candidates applying for the occupation of accountant.

Fourth, in regression (4), we include variables that could, due to the finite size of our sample, correlate with subsidy disclosure: the indicator variables "gender of contact person: female", "gender of contact person: unknown" and "contract type: temporary" on the one hand and the continuous variable "distance between living place and workplace" on the other hand. However, this barely affects the parameter estimate for the variable of primary interest, i.e., the interaction between disability and wage subsidy entitlement disclosure. In addition, based on this regression, we find that living close to the workplace is less valued for disabled candidates. Furthermore, we find no heterogeneity in unequal treatment of non-disabled and disabled candidates by such dimensions as the gender of the recruiter, the job posting agent and the contract type mentioned in the vacancy.

**TABLE 3 ABOUT HERE**

Table A.2 presents the corresponding results using positive call-back sensu stricto as an outcome variable. Table A.3 and Table A.4 replicate Table 3 and Table A.2 but introduce vacancy fixed effects. The same pattern of results is observed in these three tables concerning the parameters of main interest. However, the occupation-disability interactions lose their significance when using positive call-back sensu stricto as an outcome variable. In addition, by introducing vacancy fixed effects, we find weakly significant evidence for lower interview invitation rates for the disabled when applying for vacancies posted by interim offices.

We also test the robustness of our results using a heteroskedastic probit model. We do this given Heckman and Siegelman's (1993) critique of previous correspondence studies. This critique boils down to the fact that not controlling for group differences in the variance of unobservable determinants of positive

call-back can lead to substantial bias.[10] The solution to this problem is, as recently proposed by Neumark (2012), to adopt a heteroskedastic probit model, in which the variance of the error term is allowed to vary with the minority status of the fictitious applicants. We apply this framework in two ways. In a first application of Neumark's (2012) econometric framework, we allow the variance of the error term to vary with the disability status of the candidates. In a second application, the variance of the error term is allowed to vary among three groups: (i) the non-disabled candidates, (ii) the disabled candidates not mentioning a wage subsidy and (iii) the disabled candidates mentioning a wage subsidy. We identify these models by assuming that the distance between the residence and the workplace has the same effect on the call-back of non-disabled, deaf and autistic candidates, leaving the observations for blind candidates out of the estimation because deafness and autism do not result in substantial mobility problems, as indicated by the aforementioned Flemish organisations supporting disabled people in school and the labour market. The hypothesis that the coefficient for this variable is equal across all three groups cannot be rejected on the basis of a likelihood ratio test (p-values of 0.20 and 0.38 for positive call-back sensu lato and sensu stricto, respectively).[11] Doing this, however, we find no significant difference in the variance of the error term between the two groups classified by disability status (p-value of the likelihood ratio test using positive call-back sensu lato

[10] To see this more clearly, assume that both the average observed and unobserved determinants of productivity are the same for non-disabled candidates, disabled candidates mentioning entitlement to a wage subsidy and disabled candidates not mentioning a wage subsidy but that the variance of unobservable job-relevant characteristics is the lowest for the non-disabled candidates. In addition, suppose that the employer considers the observed determinants of productivity, inferred from the CV and the motivation letter, as relatively low compared with the job requirement. In that case, it is rational for the employer to invite the disabled candidate, as, given that the variance of unobservable job-relevant characteristics is higher for disabled candidates, it is more likely that the sum of observed and unobserved productivity is higher for these workers. A correspondence test that detects discrimination against disabled candidates could then underestimate the extent of discrimination.

[11] In addition, if we re-estimate model (4) of Table 3, Table A.2, Table A.3 and Table A.4 after leaving out the observations for blind candidates, we find no statistically significant effect of the interaction between the candidate's disability status and the distance between the working place and his living place on his probability of positive call-back.

(sensu stricto) as an outcome variable: 0.67 (0.63)) or between the three groups classified by disability and wage subsidy status (p-values of 0.82 and 0.69, respectively). Therefore, this analysis leads to the same conclusions.

# 5 Conclusion

In this study, we presented the results of the field experiment we conducted to evaluate the effect of wage subsidy entitlement on the hiring chances for the disabled. Two applications of graduates, identical except that one revealed a disability, were both sent out to 768 vacancies in the Flemish (Belgian) labour market. In addition, we randomly disclosed the entitlement to a substantial wage subsidy in the applications of the disabled candidates.

Statistical analyses of our experimentally gathered dataset indicate the following. First, when not revealing wage subsidy entitlement, the disabled candidate had a 47% lower chance to receive a positive reaction from the employer side compared with the non-disabled candidate. Second, when revealing wage subsidy entitlement, the disabled candidates had a 49% lower chance to receive a positive reaction. The difference between both statistics is not significantly different from zero. Thereby, our results show that the likelihood to receive a positive response to a job application, being a disabled candidate, is not influenced by revealing wage subsidy entitlement in Belgium. Ergo: at least in this stadium of the recruitment process, this wage subsidy instrument does not sort the desired effect. Apparently, the positive financial stimulus implied by the subsidy is compensated by signalling effects (subsidies as a signal for lower productivity) and the fear of red tape. Given, however, that all of the disabled in our experiment could, based on their particular disability, apply for the subsidy on the one hand and that administration duties related to the subsidy are very limited, from a policy perspective, we believe that investments in a better communication of the limited administrative burden of the Flemish Supporting Subsidy are needed.

An important limitation of our results, as mentioned in Section 3.5, is that

these results relate only to the first stage of the hiring process. Conditional on invitation for a job interview, disabled who disclose their entitlement to a wage subsidy may be better off in later stages than disabled who are not granted a subsidy because financial considerations might carry more weight then. Therefore, we suggest future research on the effectiveness of wage subsidies in enhancing the hiring chances for the disabled throughout the total recruitment process. In addition, we recommend future research on the impact of wage subsidies on mid- and long-term labour market outcomes (such as wages and employment duration) of the disabled. However, identifying good control and treatment groups for these purposes seems to be only possible based on natural experiments.

Our results complement the recent literature evaluating the causal impact of labour market instruments aimed at integrating the disabled into the labour market. For instance, recently, Lalive et al. (2013) tested the effectiveness of the instrument of employment quota in Austria. On the other hand, Lopez Frutos and Vall Castello (2014) evaluated the impact of disability benefit entitlement in Spain. To come to thought-out policy advice, it would be beneficial to have some of these studies replicated in other countries. In addition, there is need for an in-depth synthesis of the (cost-)effectiveness of the different instruments evaluated in this recent literature.

**Authorisation**: The present research was reviewed and approved by the Ethical Affairs Committee of the Faculty of Economics and Business Administration of Ghent University.

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# Appendix A: Additional Tables

**TABLE A.1 ABOUT HERE**

**TABLE A.2 ABOUT HERE**

**TABLE A.3 ABOUT HERE**

**TABLE A.4 ABOUT HERE**

## Table 1 – Data Description

| Observations | Jobs | Neither candidate positive call-back | Both candidates positive call-back | Only non-disabled candidate positive call-back | Only disabled candidate positive call-back | Net discrimination rate | $\chi^2$ | Positive call-back ratio: non-disabled versus disabled | t |
|---|---|---|---|---|---|---|---|---|---|
| | (No.) | (No.) | (No.) | (No.) | (No.) | | | | |
| ***A. Positive call-back sensu lato: All observations*** | | | | | | | | | |
| All observations | 768 | 558 | 76 | 114 | 20 | 0.448*** | 65.94 | 1.979*** | 8.485 |
| ***B. Positive call-back sensu stricto: All observations*** | | | | | | | | | |
| All observations | 768 | 640 | 38 | 75 | 15 | 0.469*** | 40.00 | 2.132*** | 6.490 |
| ***C. Positive call-back sensu lato: Heterogeneity by wage subsidy mention by disabled candidate*** | | | | | | | | | |
| No wage subsidy | 384 | 283 | 40 | 53 | 8 | 0.446*** | 31.20 | 1.938*** | 6.016 |
| Wage subsidy | 384 | 275 | 36 | 61 | 12 | 0.450*** | 32.89 | 2.021*** | 5.986 |
| ***D. Positive call-back sensu stricto: Heterogeneity by wage subsidy mention by disabled candidate*** | | | | | | | | | |
| No wage subsidy | 384 | 321 | 22 | 33 | 8 | 0.397*** | 15.24 | 1.832*** | 3.976 |
| Wage subsidy | 384 | 319 | 16 | 42 | 7 | 0.538*** | 25.00 | 2.522*** | 5.161 |

Notes. The net discrimination rate is calculated by subtracting the number of applications for which the disabled candidate was preferred from the number of applications for which the non-disabled candidate was preferred and dividing by the number of application pairs in which at least one candidate received a positive call-back. The chi-square test for the net discrimination rate tests the null hypothesis that both candidates are treated unfavourably equally frequently. The positive call-back ratio is calculated by dividing the percentage of applications for which non-disabled candidates received a positive call-back by the corresponding percentage for disabled candidates. The t-test for the positive call-back ratio tests the null hypothesis that the probability of a positive answer is the same for candidates from both groups. As two applicants contacted the same firm, the probability of the non-disabled applicant receiving an invitation was correlated with the probability of the disabled applicant receiving an invitation. Therefore, the standard errors are corrected for the clustering of the observations at the vacancy level. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level.

## Table 2 – Positive Call-back by Disability and Subsidy Entitlement Disclosure (Positive Call-back Ratio, Sensu Lato)

| Observations | PCR: non-disabled versus disabled | t | PCR: non-disabled versus disabled without wage subsidy | t | PCR: non-disabled versus disabled with wage subsidy | t | PCR: disabled without wage subsidy versus disabled with wage subsidy | t |
|---|---|---|---|---|---|---|---|---|
| ***A. All observations*** | | | | | | | | |
| All observations | 1.979*** | 8.485 | 1.979*** | 6.682 | 1.979*** | 6.396 | 1.000 | 0.000 |
| ***B. Breakdown by the specific disability disclosed by the disabled candidate*** | | | | | | | | |
| Blindness | 2.286*** | 4.607 | 2.667*** | 4.225 | 2.000*** | 3.169 | 0.750 | 0.681 |
| Deafness | 1.816*** | 5.248 | 1.648*** | 3.507 | 2.023*** | 4.582 | 1.227 | 0.792 |
| Autism | 2.038*** | 4.903 | 2.208*** | 4.204 | 1.893*** | 3.225 | 0.857 | 0.412 |
| ***C. Breakdown by the education status of both candidates*** | | | | | | | | |
| Moderately educated | 2.407*** | 4.970 | 2.955*** | 4.715 | 2.031*** | 3.600 | 0.688 | 0.997 |
| Highly educated | 1.812*** | 6.995 | 1.689*** | 4.834 | 1.953*** | 5.346 | 1.156 | 0.663 |
| ***D. Breakdown by the extensiveness of the application*** | | | | | | | | |
| Limited application | 2.000*** | 6.200 | 2.043*** | 4.927 | 1.958*** | 4.534 | 0.958 | 0.155 |
| Extensive application | 1.959*** | 5.807 | 1.920*** | 4.524 | 2.000*** | 4.506 | 1.042 | 0.153 |
| ***E. Breakdown by the job posting agent*** | | | | | | | | |
| Firm | 1.984*** | 7.876 | 1.921*** | 6.041 | 2.051*** | 6.049 | 1.068 | 0.313 |
| Interim office | 1.925*** | 2.994 | 2.313*** | 2.647 | 1.667** | 2.155 | 0.721 | 0.692 |
| ***F. Breakdown by the contract type of the posted job*** | | | | | | | | |
| Permanent contract | 2.041*** | 7.849 | 2.085*** | 6.432 | 1.999*** | 5.705 | 0.959 | 0.191 |
| Temporary contract | 1.773*** | 3.290 | 1.685** | 2.288 | 1.878*** | 2.856 | 1.114 | 0.281 |
| ***G. Breakdown by the gender of the contact person mentioned in the posted job*** | | | | | | | | |
| Male contact person | 1.905*** | 5.372 | 2.620*** | 5.621 | 1.507*** | 2.746 | 0.575* | 1.867 |
| Female contact person | 2.043*** | 6.112 | 1.755*** | 4.077 | 2.492*** | 5.511 | 1.420 | 1.258 |
| ***H. Breakdown by the distance (in minutes when driving by car) between the candidate's living place and the workplace*** | | | | | | | | |
| 30' of driving or less | 1.877*** | 5.840 | 1.985*** | 4.928 | 1.780*** | 4.024 | 0.897 | 0.429 |
| More than 30' of driving | 2.114*** | 5.850 | 1.970*** | 4.393 | 2.281*** | 4.920 | 1.158 | 0.506 |

Notes. The positive call-back ratio (PCR) is calculated by dividing the percentage of applications receiving a positive call-back for a first group of candidates by the corresponding percentage for a second group of candidates. The t-test for the positive call-back ratio tests the null hypothesis that the probability of a positive answer is the same for candidates from both groups. Standard errors are corrected for clustering at the vacancy level. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level. The distance between the candidate's living place and the workplace announced in the vacancy is calculated using the online routing tool Mappy.be.

## Table 3 – The Probability of Positive Call-back Sensu Lato: Linear Probability Model with Resume Type Fixed Effects

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Disability | -0.122*** (0.014) | -0.122*** (0.014) | -0.122*** (0.014) | -0.122*** (0.014) |
| **Disability × wage subsidy entitlement disclosure** | | **0.000 (0.023)** | **0.000 (0.023)** | **0.003 (0.023)** |
| Disability × gender of contact person: female | | | | -0.023 (0.031) |
| Disability × gender of contact person: unknown | | | | -0.004 (0.052) |
| Disability × job posting agent: interim office | | | | -0.120 (0.110) |
| Disability × contract type: temporary | | | | 0.042 (0.083) |
| Disability × distance between living place and workplace | | | | 0.032** (0.015) |
| Disability × blind candidate applying for accountant | | | -0.047 (0.045) | -0.057 (0.047) |
| Disability × blind candidate applying for informatician | | | -0.109* (0.058) | -0.110* (0.058) |
| Disability × blind candidate applying for administrative clerk | | | -0.047 (0.050) | -0.032 (0.051) |
| Disability × blind candidate applying for teleseller | | | -0.031 (0.056) | -0.012 (0.057) |
| Disability × deaf candidate applying for chemist | | | -0.094 (0.065) | -0.101 (0.065) |
| Disability × deaf candidate applying for informatician | | | -0.156** (0.062) | -0.167*** (0.062) |
| Disability × deaf candidate applying for carpenter | | | -0.047 (0.063) | -0.057 (0.064) |
| Disability × deaf candidate applying for electrician | | | -0.141* (0.072) | -0.113 (0.071) |
| Disability × autistic candidate applying for accountant | | | -0.141** (0.055) | -0.160*** (0.056) |
| Disability × autistic candidate applying for informatician | | | -0.047 (0.059) | -0.055 (0.060) |
| Disability × autistic candidate applying for administrative clerk | | | -0.047 (0.045) | -0.062 (0.047) |
| Gender of contact person: female | | | | 0.017 (0.033) |
| Gender of contact person: unknown | | | | -0.036 (0.055) |
| Job posting agent: interim office | | | | 0.069 (0.102) |
| Contract type: temporary | | | | 0.102 (0.085) |
| Distance between living place and workplace | | | | -0.051*** (0.015) |
| Resume type fixed effects | Yes | Yes | Yes | Yes |
| Observations | 1536 | 1536 | 1536 | 1536 |

Notes. The presented results are linear probability model estimates with standard errors, corrected for clustering at the vacancy level, in parentheses. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) level. Except for "disability", all variables are normalised by subtracting their mean among the subpopulation of disabled candidates. The continuous variable "distance between living place and workplace" is further normalised by dividing by the standard deviation among the subpopulation of disabled candidates. The distance between the candidate's living place and the workplace announced in the vacancy is calculated using the online routing tool Mappy.be.

## Table A.1 – Positive Call-back by Disability and Subsidy Entitlement Disclosure (Positive Call-back Ratio, Sensu Stricto)

| Observations | PCR: non-disabled versus disabled | t | PCR: non-disabled versus disabled without wage subsidy | t | PCR: non-disabled versus disabled with wage subsidy | t | PCR: disabled without wage subsidy versus disabled with wage subsidy | t |
|---|---|---|---|---|---|---|---|---|
| ***A. All observations*** | | | | | | | | |
| All observations | 2.132*** | 6.490 | 1.883*** | 4.537 | 2.457*** | 5.809 | 1.304 | 0.996 |
| ***B. Breakdown by the specific disability disclosed by the disabled candidate*** | | | | | | | | |
| Blindness | 2.444*** | 3.207 | 3.667 | 3.229 | 1.833* | 1.955 | 0.500 | 1.016 |
| Deafness | 2.036*** | 4.101 | 1.676*** | 2.634 | 2.591*** | 4.070 | 1.545 | 1.200 |
| Autism | 2.125*** | 4.146 | 1.700** | 2.326 | 2.833*** | 3.916 | 1.667 | 1.031 |
| ***C. Breakdown by the education status of both candidates*** | | | | | | | | |
| Moderately educated | 2.467*** | 3.440 | 2.643*** | 3.203 | 2.313*** | 2.730 | 0.875 | 0.263 |
| Highly educated | 2.000*** | 5.702 | 1.652*** | 3.292 | 2.533*** | 5.369 | 1.533 | 1.367 |
| ***D. Breakdown by the extensiveness of the application*** | | | | | | | | |
| Limited application | 2.261*** | 4.531 | 2.167*** | 3.500 | 2.364*** | 3.830 | 1.091 | 0.215 |
| Extensive application | 2.033*** | 4.638 | 1.694*** | 2.929 | 2.542*** | 4.364 | 1.500 | 1.140 |
| ***E. Breakdown by the job posting agent*** | | | | | | | | |
| Firm | 1.969*** | 5.740 | 1.739*** | 3.896 | 2.273*** | 5.081 | 1.307 | 0.986 |
| Interim office | 6.256*** | 3.175 | 6.013*** | 2.660 | 6.500*** | 3.226 | 1.081 | 0.055 |
| ***F. Breakdown by the contract type of the posted job*** | | | | | | | | |
| Permanent contract | 2.000*** | 5.540 | 1.905*** | 4.172 | 2.104*** | 4.522 | 1.104 | 0.348 |
| Temporary contract | 3.000*** | 3.456 | 1.815* | 1.815 | 10.11*** | 4.461 | 5.571* | 1.914 |
| ***G. Breakdown by the gender of the contact person mentioned in the posted job*** | | | | | | | | |
| Male contact person | 1.923*** | 3.973 | 2.047*** | 3.236 | 1.817*** | 2.926 | 0.887 | 0.315 |
| Female contact person | 2.200*** | 4.651 | 1.692*** | 2.811 | 3.280*** | 4.772 | 1.939* | 1.656 |
| ***H. Breakdown by the distance (in minutes when driving by car) between the candidate's living place and the workplace*** | | | | | | | | |
| 30' of driving or less | 1.870*** | 4.004 | 1.754*** | 2.827 | 2.004*** | 3.389 | 1.143 | 0.376 |
| More than 30' of driving | 2.469*** | 5.099 | 2.028*** | 3.486 | 3.155*** | 4.945 | 1.556 | 1.087 |

Notes. The positive call-back ratio (PCR) is calculated by dividing the percentage of applications receiving a positive call-back for a first group of candidates by the corresponding percentage for a second group of candidates. The t-test for the positive call-back ratio tests the null hypothesis that the probability of a positive answer is the same for candidates from both groups. Standard errors are corrected for clustering at the vacancy level. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) significance level. The distance between the candidate's living place and the workplace announced in the vacancy is calculated using the online routing tool Mappy.be.

## Table A.2 – The Probability of Positive Call-back Sensu Stricto: Linear Probability Model with Resume Type Fixed Effects

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Disability | -0.078*** (0.012) | -0.078*** (0.012) | -0.078*** (0.012) | -0.079*** (0.012) |
| **Disability × wage subsidy entitlement disclosure** | | **-0.018 (0.018)** | **-0.018 (0.018)** | **-0.014 (0.018)** |
| Disability × gender of contact person: female | | | | -0.012 (0.027) |
| Disability × gender of contact person: unknown | | | | -0.020 (0.043) |
| Disability × job posting agent: interim office | | | | -0.027 (0.096) |
| Disability × contract type: temporary | | | | -0.052 (0.079) |
| Disability × distance between living place and workplace | | | | 0.027** (0.013) |
| Disability × blind candidate applying for accountant | | | -0.016 (0.041) | -0.029 (0.042) |
| Disability × blind candidate applying for informatician | | | -0.047 (0.051) | -0.043 (0.050) |
| Disability × blind candidate applying for administrative clerk | | | 0.031 (0.031) | 0.046 (0.033) |
| Disability × blind candidate applying for teleseller | | | 0.016 (0.041) | 0.035 (0.040) |
| Disability × deaf candidate applying for chemist | | | -0.063 (0.061) | -0.060 (0.062) |
| Disability × deaf candidate applying for informatician | | | -0.078 (0.054) | -0.083 (0.054) |
| Disability × deaf candidate applying for carpenter | | | -0.031 (0.059) | -0.040 (0.058) |
| Disability × deaf candidate applying for electrician | | | -0.094 (0.072) | -0.069 (0.072) |
| Disability × autistic candidate applying for accountant | | | -0.047 (0.046) | -0.057 (0.047) |
| Disability × autistic candidate applying for informatician | | | -0.063 (0.047) | -0.070 (0.048) |
| Disability × autistic candidate applying for administrative clerk | | | 0.016 (0.041) | 0.014 (0.044) |
| Gender of contact person: female | | | | 0.015 (0.027) |
| Gender of contact person: unknown | | | | -0.033 (0.043) |
| Job posting agent: interim office | | | | -0.123 (0.093) |
| Contract type: temporary | | | | 0.158* (0.082) |
| Distance between living place and workplace | | | | -0.040*** (0.013) |
| Resume type fixed effects | Yes | Yes | Yes | Yes |
| Observations | 1536 | 1536 | 1536 | 1536 |

Notes. The presented results are linear probability model estimates with standard errors, corrected for clustering at the vacancy level, in parentheses. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) level. Except for "disability", all variables are normalised by subtracting their mean among the subpopulation of disabled candidates. The continuous variable "distance between living place and workplace" is further normalised by dividing by the standard deviation among the subpopulation of disabled candidates. The distance between the candidate's living place and the workplace announced in the vacancy is calculated using the online routing tool Mappy.be.

## Table A.3 – The Probability of Positive Call-back Sensu Lato: Linear Probability Model with Vacancy Fixed Effects

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Disability | -0.122*** (0.014) | -0.122*** (0.014) | -0.122*** (0.014) | -0.122*** (0.014) |
| **Disability × wage subsidy entitlement disclosure** | | **-0.004 (0.021)** | **-0.004 (0.021)** | **-0.003 (0.021)** |
| Disability × gender of contact person: female | | | | -0.013 (0.022) |
| Disability × gender of contact person: unknown | | | | -0.028 (0.038) |
| Disability × job posting agent: interim office | | | | -0.070 (0.080) |
| Disability × contract type: temporary | | | | 0.095 (0.061) |
| Disability × distance between living place and workplace | | | | 0.031** (0.015) |
| Disability × blind candidate applying for accountant | | | -0.047 (0.045) | -0.049 (0.046) |
| Disability × blind candidate applying for informatician | | | -0.109* (0.058) | -0.102* (0.057) |
| Disability × blind candidate applying for administrative clerk | | | -0.047 (0.050) | -0.036 (0.051) |
| Disability × blind candidate applying for teleseller | | | -0.031 (0.056) | -0.024 (0.056) |
| Disability × deaf candidate applying for chemist | | | -0.094 (0.065) | -0.120* (0.065) |
| Disability × deaf candidate applying for informatician | | | -0.156** (0.062) | -0.158** (0.062) |
| Disability × deaf candidate applying for carpenter | | | -0.047 (0.063) | -0.047 (0.063) |
| Disability × deaf candidate applying for electrician | | | -0.141* (0.072) | -0.123* (0.072) |
| Disability × autistic candidate applying for accountant | | | -0.141** (0.055) | -0.157*** (0.055) |
| Disability × autistic candidate applying for informatician | | | -0.047 (0.059) | -0.042 (0.060) |
| Disability × autistic candidate applying for administrative clerk | | | -0.047 (0.045) | -0.058 (0.047) |
| Distance between living place and workplace | | | | -0.049*** (0.015) |
| Vacancy fixed effects | Yes | Yes | Yes | Yes |
| Observations | 1536 | 1536 | 1536 | 1536 |

Notes. The presented results are linear probability model estimates with standard errors, corrected for clustering at the vacancy level, in parentheses. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) level. Except for "disability", all variables are normalised by subtracting their mean among the subpopulation of disabled candidates. The continuous variable "distance between living place and workplace" is further normalised by dividing by the standard deviation among the subpopulation of disabled candidates. The distance between the candidate's living place and the workplace announced in the vacancy is calculated using the online routing tool Mappy.be.

## Table A.4 – The Probability of Positive Call-back Sensu Stricto: Linear Probability Model with Vacancy Fixed Effects

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Disability | -0.078*** (0.012) | -0.078*** (0.012) | -0.078*** (0.012) | -0.078*** (0.012) |
| **Disability × wage subsidy entitlement disclosure** | | **-0.021 (0.017)** | **-0.021 (0.017)** | **-0.019 (0.017)** |
| Disability × gender of contact person: female | | | | -0.003 (0.019) |
| Disability × gender of contact person: unknown | | | | -0.040 (0.026) |
| Disability × job posting agent: interim office | | | | -0.111* (0.067) |
| Disability × contract type: temporary | | | | 0.054 (0.057) |
| Disability × distance between living place and workplace | | | | 0.026** (0.012) |
| Disability × blind candidate applying for accountant | | | -0.016 (0.041) | -0.025 (0.041) |
| Disability × blind candidate applying for informatician | | | -0.047 (0.051) | -0.045 (0.050) |
| Disability × blind candidate applying for administrative clerk | | | 0.031 (0.031) | 0.041 (0.032) |
| Disability × blind candidate applying for teleseller | | | 0.016 (0.041) | 0.035 (0.039) |
| Disability × deaf candidate applying for chemist | | | -0.063 (0.061) | -0.071 (0.061) |
| Disability × deaf candidate applying for informatician | | | -0.078 (0.054) | -0.084 (0.054) |
| Disability × deaf candidate applying for carpenter | | | -0.031 (0.059) | -0.037 (0.058) |
| Disability × deaf candidate applying for electrician | | | -0.094 (0.072) | -0.074 (0.072) |
| Disability × autistic candidate applying for accountant | | | -0.047 (0.046) | -0.062 (0.046) |
| Disability × autistic candidate applying for informatician | | | -0.063 (0.047) | -0.066 (0.047) |
| Disability × autistic candidate applying for administrative clerk | | | 0.016 (0.041) | -0.001 (0.043) |
| Distance between living place and workplace | | | | -0.038*** (0.013) |
| Vacancy fixed effects | Yes | Yes | Yes | Yes |
| Observations | 1536 | 1536 | 1536 | 1536 |

Notes. The presented results are linear probability model estimates with standard errors, corrected for clustering at the vacancy level, in parentheses. *** (**) ((*)) indicates significance at the 1% (5%) ((10%)) level. Except for "disability", all variables are normalised by subtracting their mean among the subpopulation of disabled candidates. The continuous variable "distance between living place and workplace" is further normalised by dividing by the standard deviation among the subpopulation of disabled candidates. The distance between the candidate's living place and the workplace announced in the vacancy is calculated using the online routing tool Mappy.be.