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Give it Another Try: What are the Effects of a Job Creation Scheme Especially Designed for Hard-to-Place Workers?

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Give it Another Try: What are the Effects of a Job Creation Scheme Especially Designed for Hard-to-Place Workers?¹

Tobias Brändle² Lukas Fervers³

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Abstract

Job creation schemes (JCSs) have for a long time been considered to function as stepping stone for unemployed workers into the labour market. However, previous research has shown that public job creation schemes could at best be effective for persons with little or no employment chances. This paper contributes to this discussion by studying the effect of a very large and innovative JCS which employs an extraordinary selection mechanism to identify this group. Relying on a combination of administrative data and survey data, we employ radius-matching with regression adjustment to estimate treatment effects. Our results indicate that the effects are still negative but weaker than the ones reported in previous studies. We argue that this is due to a principal-agent problem at the very last step of the selection process which undermines the intention of the programme. Furthermore, we point to effect heterogeneity with regard to programme duration which suggests that the results are more optimistic for shorter contracts. Finally, we show that the results are sensitive to the inclusion of survey variables, even if high quality administrative data are available.

Keywords: active labour market programme; job creation scheme; public employment programme; propensity score matching; employability; integrated employment biographies

JEL Codes: J18, J24, J68

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1. Introduction

When comparing labour market performance among industrialised countries, the development in Germany is a success story. Despite the financial crisis towards the end of the 2000s, the unemployment rate has gone down from 11.2% to 4.5% of the labour force, which initiated discussions on a second economic miracle in Germany (Rinne and Zimmermann 2012). At the same time, long-term unemployment has remained almost stable within this period, and integration rates of long-term unemployed workers have not been improved over the last decade (cf. Spermann 2015). Apparently, there are many working-age workers who are unable to participate in the regular labour market, even in case of sound economic conditions and many job vacancies to be filled. While this problem seems to be quite specific at first to the German context at first glance, similar situations may arise in all industrialized countries where an increasing number of employees faces difficulties to keep up to the rising skill demands of knowledge-based economies.⁴

Together with the arrival of more than one million refugees, this has revitalized the discussion on possible active labour market policy (ALMP) strategies for persons that seem to have little or no chance to find regular employment immediately. In any case, these policies should both get the target group get used to regular working activities again, as well as improving basic skills necessary to succeed in the regular labour market. For a long time, job creation schemes (JCS) have been heavily employed as a policy tool that tries to achieve both aims at once. However, previous evaluations suggest that JCSs even tend to worsen employment chances of participants (for meta analyses see Card et al. 2010, Kluve 2010). While the causal mechanisms that trigger this finding are not directly observable, two aspects could be of relevance here. First, JCSs display strong *lock-in effects*: Participants reduce their search effort for regular employment during programme participation. This reduces integration rates especially for workers with higher labour market attachment who may have found a job during the time of the programme in case of non-participation. This argument is supported by the finding that the negative effect is less severe for workers with less favourable employment histories (for instance long unemployment duration), who have lower integration rates into the labour market anyway (Hujer and Thomsen 2010). Second, the jobs used in JCSs have to be of public utility and must not substitute regular employment. While the necessity for this restriction is apparent from an economic point of view, it means that jobs offered in JCSs are

⁴ U.S labour market participation has dropped by 3 percentage points since 2008 (<https://tradingeconomics.com/united-states/labor-force-participation-rate>).

characterized by low productivity and low skill intensity and may therefore not offer relevant skills.⁵

However, the absence of alternative successful policy-options has initiated the discussion about whether JCS could help at least certain groups of unemployed workers, e.g. those with the lowest labour market attachment. We contribute to this discussion by analysing the employment effects of an innovative JCS with about 34,000 jobs and a total budget of one billion Euros, making it one of the largest JCS in Germany at that time. The programme tries to address two of the shortcomings explained above at once.⁶ First and most importantly, potential participants do not directly start participation in the JCS, but have to go through a period of intensified counselling and monitored job search activities of at least six months. Only if they cannot find a job during this period, they may apply for the JCS. This special selection mechanism aims at targeting the programme on individuals who have (almost) no chances of finding employment at all. If these workers are successfully identified, the effect of programme participation cannot be negative anymore. This strategy goes beyond previous approaches which e.g. selected workers based only on their past employment history. Second, the JCS only consists of part-time jobs to enable participants to continue looking for jobs on the labour market, and is accompanied by a mandatory, individualised coaching. The coaching can be of very diverse content and addresses personal problems as well as lacks of skills, and is supposed to overcome the problem that JCSs cannot on their own offer a skill level which is needed in the regular labour market.

Apart from analysing this innovative institutional setting, we make two further contributions. First, we analyse whether employment effects differ with respect to programme duration. This is motivated by the argument that the negative effect on search behaviour is weaker for shorter programme durations, while the added value of further programme participation after a period of, say, one year is very limited. Second, we account for the fact that selection may take place on unobservables by following the approach suggested by Caliendo et al. (2017) and combine register data with pre-treatment survey data on usually unobservable variables, such as motivation, skills, and personal problems. In contrast to the results of Caliendo et al. (2014), we find that the inclusion of additional variables does matter, implying that the validity of relying on administrative data alone depends on the institutional context.

⁵ In the following, ‘the labour market’ means competitive jobs in the private or public sector, excluding subsidised employment in ALMPs, or non-compensated charity work.

⁶ The Institute of Applied Economic Research (IAW) has been among the institutions responsible for the evaluation of the programme. The final report can be found at IAW, ISG (2015).

To preview our findings, the results reveal large negative employment effects, similar but slightly smaller to what has been found in the literature. When discussing our results in detail, we will point to some special institutional features that seem to have impeded the success of the programme. Since these features may matter for other programmes, too, this points to clear-cut conclusions regarding future (active) labour market policy-making.

The remainder of this paper is organized as follows. In the subsequent section 2, we present a brief overview of the previous literature. Subsequently, we describe the institutional features of the programme in more detail in section 3, before we explain our empirical strategy in section 4. In section 5, we present our results and discuss theoretical implications and policy-conclusions. Section 6 concludes.

2. Literature Review

There has been an increasing interest in the impact of JCSs since the end of the 1990s/ beginning of 2000s. Even though JCSs have been part of the ALMP toolbox in almost all countries, they have been particularly heavily employed in times of high structural unemployment or economic transformation, when they functioned as secondary labour markets. Correspondingly, a huge number of studies focus on East Germany in the time after German reunification. Overall, the results are rather negative and reveal that programme participation even reduces the chances of finding regular employment especially during programme participation. Based on an administrative dataset, Lechner and Wunsch (2009) analyse different JCSs from East Germany and find negative effects for all programmes, which is consistent with the findings of Kraus et al. (2004). Further research which covers East as well as West Germany has been conducted by Caliendo et al. (2004, 2005, and 2008) as well as Hujer and Thomsen (2010), who consistently report negative average effects on employment probability. These microeconomic studies are complemented by a macroeconomic evaluation conducted by Hujer and Zeiss (2005), who estimate an augmented matching function and confirm a negative impact of an increasing inflow into JCSs on inflow into regular employment at the aggregate level. Similarly, JCSs have gained increasing importance in Switzerland towards the end of the 1990s, when economic and labour market policy-making has been challenged by an (for Swiss standards) exceptionally long period of economic stagnation and rising unemployment. Gerfin and Lechner (2002) rely on administrative data and provide empirical evidence for a wide range of different ALMPs. While the overall results are quite mixed, JCSs are shown to insert a consistently negative

effect on employment probability within the first year after programme start. Unlike the German and Swiss case, ALMPs have played an important role in Sweden, regardless of the actual economic circumstances (for a comparative evaluation of different programmes see Frölich et al. 2004 or Carling and Richardson 2004). The most relevant work in our context has been conducted by Sianesi (2008), who relies on administrative data and conducts dynamic matching analyses to estimate the effect of different ALMPs in Sweden. Even though the economic and institutional context strongly differs from the one in the aforementioned studies, the results again point to negative employment effects. The general notion of JCSs having rather negative employment effects is confirmed by meta-analyses conducted by Card et al. (2010) as well as Kluge (2010) which support the pessimistic conclusion that JCSs have (on average) lower effects than, for instance, training programmes, on employment outcomes of participants. Card et al. (2015) provide another meta-analysis with up to 76 estimates of public sector employment programmes, and find negative short and medium run, and no or at best weakly positive long run effects (on average).⁷

These negative average effects have raised the question of whether JCSs may at least be beneficial for certain groups. Caliendo et al. (2004, 2005, 2008) have made a start and distinguished the effects with respect to the usual suspects for effect heterogeneity, namely region (East vs. West Germany), gender, and sector of employment. While they do find significant differences for some sub-groups, there is no clear-cut pattern across all analyses. A more unambiguous picture is reported by Caliendo et al. (2008) as well as Hujer and Thomsen (2010) with respect to foregoing unemployment duration. Hujer and Thomsen (2010) stratify their sample according to the number of quarters of unemployment, and show that the effect is clearly less negative for persons with longer previous unemployment duration. This supports the argument that programmes are at least less detrimental to persons with lower labour market attachment who would have had low integration rates in case of non-participation, anyway.

Finally, it is worth looking at the magnitude and the temporal pattern of the effects. The latter are negative right after programme start, and accelerate up to a certain point in time, but get smaller (or sometimes even insignificant) towards the end or after the programme. These results highlight the role lock-in-effects play. However, it should be noted that negative effects often persist after the end of the programme at least for some programmes. Hujer and

⁷ Public sector employment programmes especially perform worse than other ALMP programmes conditional on other characteristics. For instance, JCSs are often dedicated to long-term unemployed. This group is usually more responsive to ALMP programmes than other groups.

Thomsen (2010) analyse JCSs which typically last for 12 months, and report a reduced employment probability of nine percentage points even two years after programme start (for male worker from West Germany who have entered the JCS during their first quarter of unemployment). Similarly, Sianesi (2008: 386) reports negative effects even five years after programme start. Moreover, the detected impacts are often large in magnitude. For the aforementioned group, Hujer and Thomsen (2010: 45) report negative employment effects of 20.8 percentage points six months after programme start (women: 28.8 percentage points). Even for male workers who enter the JCS during their fifth quarter of unemployment, the effects amount to 15.8 percentage points (women: 22.1 percentage points). While the effects obviously differ between studies, the mentioned findings are not extraordinary. For example, Sianesi (2008: 386) also reports negative short-term average effects of more than 20 percentage points, while Lechner and Wunsch (2009: 685) find a negative effect of about 25 percentage points six months after programme start. Card et al. (2015) suggest that the slow recovery from the lock-in period may come from the lack of appreciation of private employers to the experience or skills gained in JCSs.

In sum, three main conclusions can be drawn. First, JCSs tend to have large adverse effects on employment outcomes of participants. Second, the effects are very strong immediately after programme start but get weaker towards the end of the observation period. Finally, the effects differ between groups, especially with respect to foregoing unemployment duration. However, it is important to notice that the short-term effects are still quite large, even for long-term unemployed workers. This implies that the counterfactual employment probabilities in case of non-participation would not have been that low. Consequently, this means that the crucial condition for JCSs to be effective is to target individuals with very low employment probabilities. Yet, previous evidence suggests that targeting simply based on foregoing unemployment duration as the main or only criterion of selection might not be sufficient to identify workers with sufficiently low counterfactual employment probabilities. This raises the question of whether there could be alternative selection mechanisms which are able to identify more suitable target groups.

3. Structure of the Programme

The programme under discussion is a recent JCS that has been run in Germany between 2011 and 2014. Its basic idea is that unemployed workers get a publicly financed job that has to be of public utility and must not substitute regular employment. These jobs are mostly located in

the public sector or at charity organizations. The activities carried out range from social services (e.g. transport services for the charity organizations) to manual occupations or administrative tasks.⁸ The programme has offered 33,955 publicly funded jobs to unemployed recipients of social assistance who are either long-term unemployed or have received a very low wage in their previous job. The JCS constitutes a regular employment relation including social security contributions and a gross wage of at least 900 Euros (30 hours / week, 600€ in case of 20 working-hours/week). In case of a 30 hours contract, this is significantly more than total regular welfare receipt.

Apart from these basic characteristics, there are three special features that make the programme particularly interesting. First, the selection into the programme follows a very special mechanism which exactly aims at identifying individuals with no chances to find a regular job: Before participants can apply for the JCS, they have to undergo a period of intensified counselling and monitoring lasting for at least six months (*activation period*), in which they have to search for a job in the regular labour market with special support by the local employment agencies. Only if they cannot find a job within the activation period, they can apply for the JCS. The evaluation of the activation period has confirmed that it indeed fosters exit into employment, which means that it successfully filters out workers who could find a job in a short period of time (Fervers 2016). Second, the JCS-jobs are only part-time jobs (20 or 30 working hours) that are accompanied by a mandatory coaching. Both features aim at tackling two natural dilemmas of JCSs. On the one hand, the JCS shall contribute to human accumulation both in terms of cognitive and non-cognitive skills. At the same time, the jobs must not substitute regular employment, and therefore have to be of rather low productivity. The coaching is therefore implemented as a means of intensifying the positive effect on human capital accumulation that may have worked suboptimal in previous JCSs. On the other hand, the reduced intensity due to the part-time jobs enables participants to continue to look for a job in the regular labour market. Third, participants are offered contracts of different (initial) durations (one, two or three years). These contracts can be prolonged for up to three years total. Previous research on JCSs has mostly neglected possible effect heterogeneity with respect to programme duration. However, effect heterogeneity seems to be very plausible here if we consider the causal mechanisms by which JCSs affect employment

⁸ The positions are mostly set in social services at communities, cities and counties, for example in schools (23.2%), in transport and catering (21.7%), or gardening (20.4%). Most of the tasks performed are involved in caring (41.1%) or in providing information (30.1%). The job requirements are, in relation to the target group, relatively high. They usually involve a minimum level of autonomy, social skills and technical knowledge. For a detailed description of the activities see IAW, ISG (2015).

outcomes. On the one hand, there may be a positive effect because unemployed individuals get used to regular working activities and accumulate additional skills. On the other hand, this positive effect is counterbalanced by the well-known lock-in effect that negatively affects the probability of finding regular employment. While the lock-in effect keeps participants away from the regular labour market throughout the whole programme, the positive marginal effect on human capital accumulation is likely to decrease over time, due to the low skill intensity of the JCS jobs. This reasoning suggests that the impact on employment outcomes may be more favourable for programme durations of one year.

While this institutional setting seems to be a promising approach, it should be noted that its idea is partly undermined by the way the final step of the programme selection goes. In most local employment agencies, a number of individuals are chosen as applicants and then compete for one job in the JCS. The final hiring decision is made by the JCS-employer. We argue that this mechanism essentially creates a principal-agent problem in two regards. On the one hand, the caseworkers get benefits or promotions based on their personal integration rates. This creates an incentive to push individuals with better employment prospects among the group of eligible participants to the programme. On the other hand, the JCS-employers are likely to pick out workers with favourable personal characteristics, too, because their primary interest is the acquisition of skilled employees rather than to function as a stepping-stone into regular employment. At the methodological level, this creates additional challenges because it gives rise to positive selection. To make things worse, the employers are likely to observe and base their decision on characteristics such as motivation or communication skills which are not observable in administrative data. The commonly employed strategy to conduct matching analyses that rely on high-quality administrative data may therefore be insufficient.

4. Empirical Analysis

4.1 Research Design, Data and Estimation

Research Design

The analysis is based on the comparison of employment outcomes of a treatment and control group. Participants from the JCS form the treatment group, whereas the control group consists of persons who have undergone the activation period, but were not chosen to become

participants in the JCS and therefore continued to look for a job while being unemployed.⁹ The idea for this setting is that participation in the activation period is already a treatment, such that a comparison with a random sample from the universe of long-term unemployed does not make sense, because we would capture two distinct treatments at the same time.¹⁰ Moreover, our choice of the comparison group guarantees that treatment and control units come from the same local labour market. While this avoids regional bias, the geographical closeness of treatment and control units raises doubts about the stable unit treatment value assumption (SUTVA) which states that control units are unaffected by the treatment status of other units. Even though it is a legal restriction that JCS-jobs must not substitute regular employment, it is questionable whether this restriction per se guarantees the absence of any interference between units. For example, it is possible that the municipalities would have created additional jobs if the programme had not been implemented. However, in a companion paper (Fervers 2016), we rely on a similar approach as Crépon et al. (2013) and test for substitution by comparing the employment outcomes of control units from participating employment agencies with the ones from non-participating employment agencies. Using semi-parametric difference-in-differences estimation to account for regional selection, we neither find substitution effects for the activation programme nor for the JCS.

Data

The treatment effect is estimated via propensity-score matching and relies on a combination of administrative data and survey data. The administrative data (the Integrated Employment Biographies, IEB) are a combination of social security records from different sources which are frequently used in German ALMP evaluation. We can record employment status of all treatment and control units, which serves as basis for the measurement of employment outcomes. We measure these outcomes from the start of the employment period for the participants, and from a hypothetical start for the control group.¹¹

We define our outcome variable, integration in the first labour market, as having a social security job without parallel participation in any ALMP programme. Moreover, we use the administrative data to construct four groups of control variables, based on the variables used

⁹ We further exclude those activated individuals that had already found a job in the labour market during the activation period.

¹⁰ For analysis of the former treatment, see the companion paper by Fervers (2016).

¹¹ We can follow the individuals for up to 1,080 days, depending on individual programme entry. The hypothetical starting date is identical to the end of the activation period plus a random variable that mirrors the duration between activation period and the start of the JCS of the treatment group. Observations who have found employment before their hypothetical starting date are discarded from the analysis.

in the literature on ALMP evaluation. First, we rely on the detailed information on past employment biographies (namely all spells of employment, unemployment and programme participation in the last seven years) to construct indices that measure the number of months in the respective employment status in the last, as well as in the second to fourth and in the fifth to seventh year before programme start. In addition, we have constructed a dummy variable that indicates whether someone has been regularly employed at all within the last seven years.¹² Second the IEB consist of basic socio-demographic variables such as level of education, family status, age, or the number of children. Third, they contain a number of characteristics of the last job, for instance the degree of complexity. Finally, the subjective assessment of the case worker (who group the unemployed into five categories depending on their perceived future job chances) from the local employment agencies is available for more than 90% of both treatment and control group. In addition to these individual data, we have access to information on local labour market conditions, namely regional employment and unemployment rate as well as GDP per capita. As treatment and control group come from the same local employment agencies, differences in local labour market conditions are very limited and only result from different shares of treatment and control observations between local employment agencies. Our total sample comprises of 69,452 individuals which is a 50% sample of all participants. 13,692 (or roughly 20%) of these individuals enter in the JCS and 11,819 have found a job in the labour market during the activation period, such that they could not enter the JCS. Table A.1 presents an overview on the numerical composition of the different groups. Among the participants, about half of the initial participants stay for the full duration of three years in the programme. For 34% of the participants, the (initial) programme duration is only one year. Descriptive statistics for all variables are summarized in Table A.2.

In spite of the richness and high quality of the data, the validity of the assumptions underlying a matching analysis (especially the conditional independence assumption, CIA) seems questionable. As outlined in Section 3, the application for the jobs in the JCS is a competitive process, in which the local employment agency staff and the employers decide on the most suitable candidate. Even though the employers are not profit-oriented, it still seems reasonable to expect that they will pick applicants who can fulfil the tasks for the whole programme length and therefore require a certain set of skills, for instance better communication skills, or seem to be more reliable. Descriptive comparisons of participants and non-participants before

¹² We have not included previous earnings, because unlike in training programmes, participants are out of work for a long time. Also, hard-to-place workers often have to change their occupation (and/or qualification level) to find a job. Therefore, previous earnings are less relevant. Also, for a large share of our participants, previous employment spells are outside our observation period, such that earnings cannot be observed at all.

matching support this suspicion (see Table A.2). For example, the share of persons without any kind of school degree or professional qualification is 9% in the treatment group but 12% in the control group, whereas the incidence of individuals who have carried out highly complex activities in their last employment spell is higher in the treatment than in the control group (10% vs. 7%).

To overcome this problem, most evaluations control unobservable character traits by observing the employment history of (potential) participants, which correlates with innate ability, motivation or placement obstacles (Lechner and Wunsch, 2013). However, this approach only captures the time-invariant part of individual heterogeneity. In our case, long-term unemployed are screened and activated six months before they can enter the programme. During this period of increased coaching and counselling, it seems reasonable that personal characteristics which are important for the decision of programme participation may change: Coaching can increase motivation or reduce placement obstacles. Therefore, we follow a similar approach as Caliendo et al. (2017) and combine the administrative data with survey data on usually unobservable characteristics which affect labour market outcomes. To do so, we have then surveyed a subset of potential participants of the JCS, that is, individuals who were close to the end of the activation period. The survey consists of questions on character traits, skills and behavioural attitudes similarly to what one would ask in a job interview. These characteristics can be grouped into five categories. First, survey participants had to report or rate their non-cognitive skills, for instance their willingness to take over responsibility or to work in teams. The other categories relate to cognitive skills (for instance self-reported capacity to write e-mails or conduct internet research), social problems (for instance whether there are family conflicts), the support individuals receive from their social environment (for instance whether their friends are interested in their situation), and concessions they are willing to make in order to find a job (for instance whether they would be willing to change their place of residence). In effect, we have pretty much the same information the local employment agency staff and the JCS-employer have about the potential participants. 6,540 individuals participated in the survey, out of which 1,781 later became participants in the JCS and 3,846 continued to look for a job while being unemployed (913 found a job within the activation period and are therefore discarded from the analysis, see Table A.1). We will see that the inclusion of these variables significantly increases the explanatory power of our treatment selection estimations (see Table A.3).

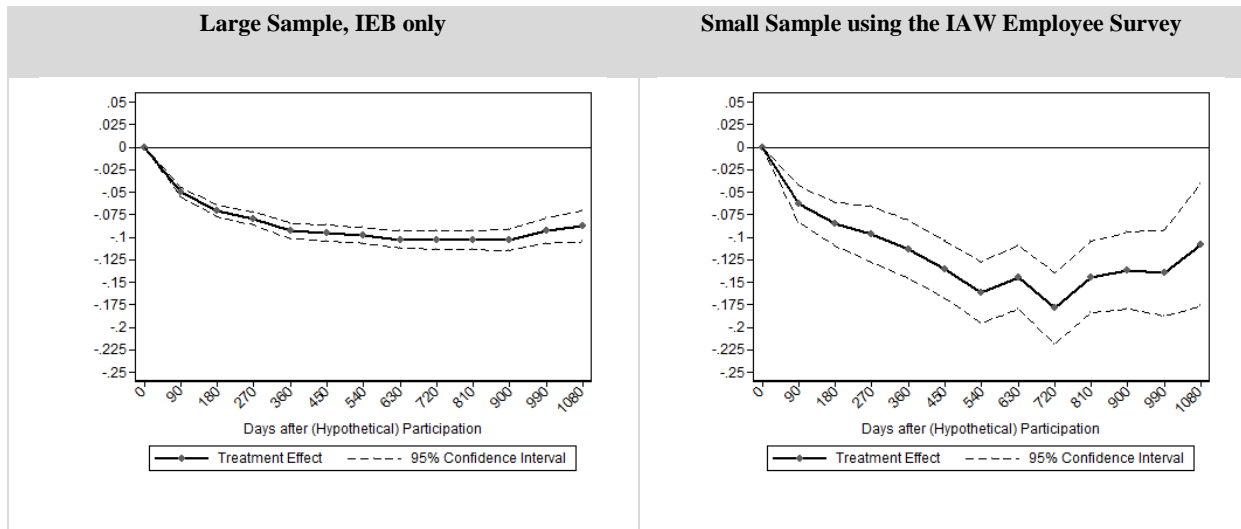
Estimation

Based on these data, we conduct propensity-score matching to estimate the treatment effect. Since many different matching algorithms have been suggested, we follow recent Monte-Carlo evidence from the growing body of microeconomic literature on the finite sample properties of different matching and weighting estimators (see e.g. Fröhlich 2004; Abadie and Imbens, 2006, 2011; Busso, DiNardo and McCrary 2009; Hainmueller, 2011). Since classical Monte-Carlo studies rely on an artificial data generating process which also differs from the one in the respective situation of the applied researcher, they have been criticized for being characterized by low external validity. To mitigate this problem and to rely on the advice that is most relevant for our situation, we follow the results presented by Huber et al. (2013, 2014) for two reasons. First, they conduct empirical Monte-Carlo simulations that rely on real rather than artificially created data. Second the dataset they use is a sub-sample of the IEB (SIAB) that is used for our analysis. In this regard, we are confident to assume that their data generating process mirrors the one in our study most closely. Therefore, we follow their results and conduct radius-matching with linear regression adjustment, with the radius being defined as three times the maximum distance that would have occurred in one-to-one nearest-neighbour matching. In spite of the superior performance of this estimator, the robustness of the results with regard to the estimation technique has to be checked. Therefore, we have experimented with both tuning parameters of this algorithm itself (e.g. different sizes of the radius, different modes of regression adjustment) as well as completely different matching algorithms that have performed well in Monte-Carlo studies (e.g. mahalanobis-matching with regression adjustment as suggested by Abadie and Imbens (2006, 2011)). All specifications yield qualitatively similar results and lead to the same substantive conclusions. Moreover, we follow the idea of Heckman and Hotz (1989) that has recently been reinforced by Imbens (2015) and Imbens and Rubin (2015) to assess the CIA by means of placebo tests. In specific, we repeat the estimation and define past employment outcomes, namely the number of months in employment eight and nine years before programme start, as dependent variables. Significant treatment effects would point to time-invariant unobserved heterogeneity. However, none of the tests yields significant treatment effects (see figure A.5), which refutes concerns about heterogeneity in terms of time-invariant characteristics.

4.2 Results

We start by presenting the results for the whole sample (Figure 5.1), once without (left) and with (right panel) the survey data.¹³ The graph displays absolute treatment effects on integration into the first labour market in percentage points at different points in time after programme participation.¹⁴

Figure 5.1: ATT of Participation in the Employment Period on Integration into the First Labour Market



Source: Sample of the IEB, IAW Participants Survey, own calculations.

The left panel already indicates a strong and significant negative treatment effect that reaches up to 10 percentage points within the first two years after programme participation. The treatment effect is weaker towards the end of the observation period, when some of the contracts have expired. Given the rather low absolute integration rates of the treatment group, this absolute effect translates into a negative relative effect of about 50% (depending on the point in time that is considered). The negative treatment effect is larger than the difference in raw integration rates (see Figure A.1 in the Appendix) such that we can acknowledge positive selection. This argument is substantiated by the right panel which shows that the negative treatment effects get even stronger when the survey variables are included. The confidence intervals between both estimators overlap at some of the points in time, so the statistical significance of the difference is ambiguous. Nevertheless, they are large in absolute terms. For example, after 720 days the estimated effect is about 20 percentage points rather than 10 percentage points in the large sample. This points to substantive (and in this case also

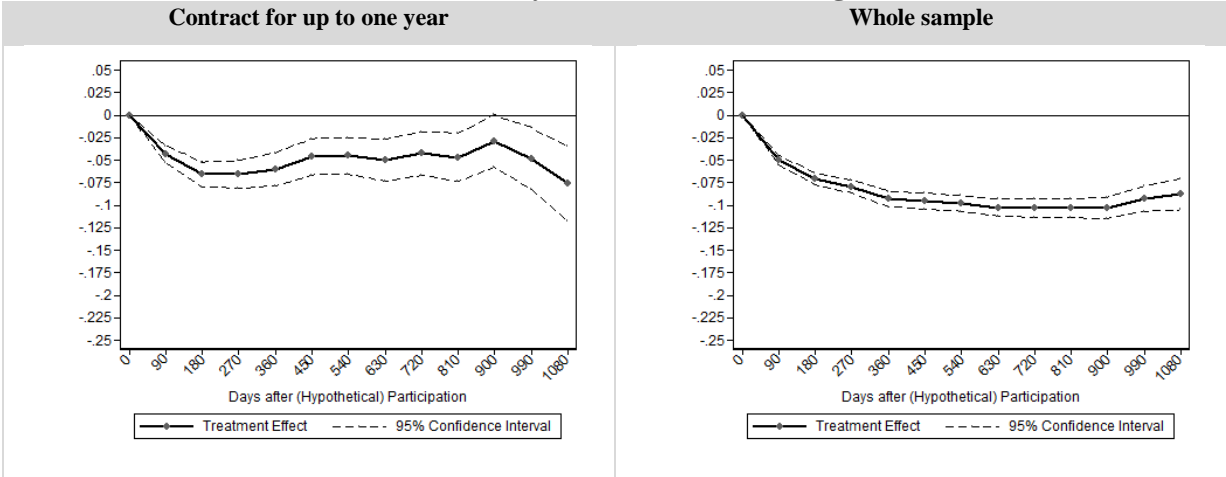
¹³ We have tested for whether survey participants are a non-random selection by running the model using administrative data only on the sample of survey participants. The results indicate no sample selection bias, that is, they are similar to the large sample results.

¹⁴ For the control group, a hypothetical programme start has been defined that is equal to the end of the activation period plus a random variable which mirrors the distribution of the duration between the end of the activation period and the start of the JCS of the treatment group.

statistically significant) differences between both estimators, and fits our argument that the estimations based on administrative data alone tend to be upward biased by positive selection on unobservables.

We proceed by distinguishing the estimation with regard to contract length, and limit the sample to observations with programme duration of only one year.¹⁵ Due to the otherwise too small number of observations, we do not include the survey data (and keep in mind that the results tend to be upper bounds of the real effect, which is not necessarily a problem here because we are mostly interested in the difference between both groups). Figure 5.2 shows the results for one year (left panel) in comparison to the whole sample (right panel).

Figure 5.2: ATT of Participation in the Employment Period on Integration into the First Labour Market, Differentiated by Initial Contract Length



Source: Sample of the IEB, own calculations.

As expected, the results appear to be less negative for programme durations for up to one year. The difference is particularly pronounced in the second year after the start of programme participation. After 360 (720) days, the negative absolute effect is 5.5 (4.2) percentage points, compared to about 10 percentage points in the whole sample. In contrast to our expectations and previous findings from the literature, the difference gets smaller towards the end of the observation period because the negative effect accelerates again for persons with initial contracts of only one year. This suggests that the effects are not only driven by lock-in, but also by a negative effect after programme participation. Nevertheless, there will be a clear and remarkable difference on cumulated time in employment between different programme

¹⁵ Since the contracts have often been limited to one year for formal reasons but were immediately extended for another one or two years, we discard observations with immediate renewals of their contract from the analysis. While this would entail conditioning on future employment outcomes under different circumstances, it does not in this case because these contracts were (mostly) only de jure limited to one year. In total, 1,969 treated units have a contract without immediate extension.

durations. It may be claimed that the difference could be driven by stronger endogenous selection into one year contracts, for instance if the programme duration is adapted according to expectations about future job chances. Nevertheless, this seems unlikely to be a problem in this special institutional setting, because JCS-employers have, if anything, an incentive to keep better skilled applicants in the programme for longer time spans, which refutes the aforementioned concerns.

Finally, we have conducted the analyses separately with respect to gender and region. However, these estimations do not point to systematic differences, the estimated treatment effects are sometimes stronger and sometimes weaker for any of the two groups (see Figures A.2 and A.3). This finding is consistent with the previous literature on JCSs, which did not reveal clear patterns with regard to gender or region-specific effect heterogeneity.

4.3 Discussion

The results from the econometric analysis reveal three main insights. First, the hope of achieving more favourable effects due to the special selection mechanism of the programme has overall not been fulfilled. The negative treatment effects tend to be weaker than the ones reported in previous evaluations, but it is still significantly negative both in statistical and in economic terms. This finding comes as a bad surprise, because especially the extraordinary selection mechanism seemed promising from a theoretical point of view. Moreover, previous research on the impact of the activation programme (IAW, ISG 2015; Fervers, 2016) shows that it did foster immediate labour market integration. Furthermore, the comparison of the observations who found a job before they entered the JCS reveals that they are indeed characterised by higher labour market attachment than the treatment and control group. This suggests that the selection mechanism successfully managed to target the programme on individuals with worse or no immediate job chances. However, our analysis of the final step of the selection process, that is, whether someone participates in the JCS or continues to look for a job while being unemployed, reveals that the opposite has taken place here. The comparison of both groups points to cream-skimming because the treatment group is characterised by more favourable characteristics. While the causal mechanisms of the selection process are not directly observed, it seems convincing to argue that the aforementioned principal-agent problem plays a key role here. While it seems to be a rather special case at first glance, this problem may occur with any programme where third party organisations are involved, be it job creation schemes, wage subsidies or job search assistance

and training programmes. In this regard, it is the central policy conclusion from the main analysis that it remains a promising idea to target on very-hard-to-place-workers by other means than just considering past employment biographies. At the same time, it is worth reconsidering possible mechanisms for identifying groups with very low counterfactual integration rates. This could include restrictions with regard to other characteristics such as health problems or other innovative approaches regarding a certain pre-selection. In any case, our analysis has shown that it is essential to enforce this targeting at all steps of the selection mechanism, especially if third party organizations are involved.

Second, the distinction with respect to programme duration indicates that a shortening of JCSs should be considered. Our empirical analyses show remarkable effect heterogeneity and it seems convincing that these findings may be generalized at least to a certain extent to other contexts for two reasons. On the one hand, lock-in effects seem to play a major role, and they are by definition reduced if the programs are shortened. On the other hand, the additional gain of participation after a period of, say, more than one year will also be limited in other JCS. To put that in somewhat more formal terms: The optimal programme duration is reached if the additional gain of any further participation equals the negative effect on employment probability due to lock-in. Even though it does not seem feasible to actually determine this point exactly, programme durations of three years appear to be too long. In this regard, shorter programme durations should be considered for future programmes. Alternatively, it could be worth considering other innovative approaches that have been suggested by the JCS-employers themselves such as the possibility to interrupt the JCS for short internships or trial work periods in regular jobs.

The third aspect is a more methodological one. As noted in Section 4.1, the validity of the CIA seems to be questionable in the given institutional context if the analysis relies on administrative data alone. Correspondingly, the results change when the survey variables are additionally included in the matching analysis. While this is consistent with our expectation, it contrasts the results of Caliendo et al. (2014) who rely on a similar approach but do not find differences in the estimated effects. Therefore, they conclude “that rich administrative data that includes detailed labour market histories may be good enough to draw policy conclusions on the effectiveness of active labour market policies (Caliendo et al. 2014: 4).” Their conclusion accounts especially to short- and long-term training, whereas there is a certain difference in the estimated effects when it comes to wage subsidies. Taken together with our results, this reveals a pretty plausible picture. While there may be endogenous selection into

training programmes as well, it is likely to be weaker, and it is also less clear whether unobserved factors that increase the likelihood of programme participation will have a positive or a negative impact on future labour market chances. In this regard, it seems convincing that rich administrative data on past employment histories may be sufficient to absorb remaining unobserved differences. In contrast, endogenous selection into wage subsidies and JCS is likely to be stronger, because it involves a third party organization which picks the most suitable candidates. In this regard, the argument that past employment biographies absorb usually unobservable variables seems to hold for some but not for all kinds of ALMP programmes, especially not for those where a third party which has its own objectives is involved in the selection process.

5. Summary and Conclusions

This paper has been motivated by the consideration that the high number of long-term unemployed workers in spite of very sound economic conditions calls for policy measures that support very hard-to-place workers. In the past, JCSs may have been considered as suitable policy programmes which could function as stepping-stone into regular employment. However, previous evaluations have revealed that JCS can at best be effective for groups with little or no chances to find regular employment. We have contributed to this discussion by evaluating a JCS which uses a special selection mechanism that filters out long-term unemployed workers who cannot find a job even with intensified job search assistance. Even though this seems to be a promising approach from a theoretical point of view, the overall results are again disappointing. The negative employment effects are slightly weaker compared to other JCSs, but still statistically robust and economically substantive. Our main explanation for the once again negative effect is that the idea of the selection mechanism is undermined at its very last step, where a principal-agent problem leads to cream-skimming rather than the intended targeting. At the substantive level, another contribution is that we have pointed to effect heterogeneity with respect to programme duration. Employment effects are still negative but weaker for programme durations for up to one year. While the limits of the external validity of our analyses have to be considered, it seems reasonable to argue that this finding also generalizes to other contexts. At the methodological level, we have extended the findings of Caliendo et al. (2017), who also combine rich administrative data with survey data. Taken together, the results suggest that administrative data are sufficient for many ALMP programmes, but the inclusion of survey variables is necessary for programmes with strong endogenous selection, e.g. if a third party is involved in the selection process.

These findings raise complex questions for future policy-making. On the one hand, the skill mismatch in the introduction is still an urgent problem, which is unlikely to get weaker in times of an increasing digitalization which even makes skills of qualified workers obsolete. On the other hand, it simply has to be admitted that economic policy-making has not yet found a convincing answer to this situation. As the high amount of resources spent for ALMPs shows (Martin 2015), it is the lack of suitable policy options rather than the lack of political willingness that causes the problem.¹⁶ However, there may be different ways to improve the effectiveness of JCS. As our analysis has shown, the idea to apply different selection mechanisms is a promising approach, but it has to be enforced at all steps of the selection process. Moreover, we have highlighted that it is worth reconsidering the duration of JCS. Related to that, it has also been suggested to include further innovative tools such as the possibility to interrupt the JCS job for internships in the regular labour market. In any case, the way out of this dilemma has to be a dynamic dialogue between policy-makers and labour market researchers in which innovative policy-tools are implemented and their effectiveness is then assessed by scientific evaluations.

¹⁶ OECD countries spend on average 0.57% of the GDP in 2012 on ALMPs, which translates to about 3,605 dollars per unemployed individual. For Germany, these numbers are even larger with 0.69% of GDP and 8,728 dollars per individual, with increasing attention being paid to long-term unemployed and hard-to-place workers in recent years.

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Appendix

Additional Tables

Table A.1 Overview on Observations

	IEB register data	IAW Survey on Participants
Activated individuals, still unemployed	43,941	3,846
Activated individuals, employed in the first labour market before being eligible to the job creation scheme	11,819	913
Activated individuals, employed in the job creation scheme	13,692	1,781

Source: Sample of the IEB, IAW Survey on Publicly Employed, own calculations.

Table A.2 Descriptive Statistics on Participants and Control Groups

Variable	Participants	Still Unemployed	Employed in the First Labour Market
	Mean	Mean	Mean
No graduate	0.09	0.12	0.07
Intermediate school certificate, no professional qualification	0.20	0.27	0.22
High school degree or vocational training	0.62	0.55	0.59
High school degree and vocational training	0.04	0.03	0.06
Subject-linked university degree	0.02	0.01	0.03
University degree	0.03	0.02	0.04
Age	44.17	40.87	35.86
Family Status: single	0.42	0.43	0.53
Family Status: married/living with a partner	0.32	0.34	0.28
Family Status: divorced/widowed/living separately	0.25	0.23	0.18
Family Status: missing	0.00	0.00	0.00
Health problems: yes	0.26	0.25	0.19
Semi-skilled worker	0.13	0.16	0.10
Professionally oriented activities	0.69	0.68	0.71
Complex specialized activities	0.08	0.07	0.10
Highly complex activities	0.10	0.07	0.10
Complexity: missing / no Employment	0.00	0.03	0.00
Relieved receiving of benefit: children	0.01	0.01	0.03
Dropout of measure due to inappropriate behaviour	0.02	0.03	0.03
Dropout of measure due to other reasons	0.04	0.04	0.04
Measure not completed successfully	0.04	0.05	0.06
Child < 3 years: no	0.60	0.66	0.24
Child < 3 years: yes	0.02	0.04	0.03
Child < 3 years: missing	0.39	0.31	0.73
Child between 3 and 6 years: no	0.58	0.65	0.25
Child between 3 and 6 years: yes	0.03	0.04	0.02
Child between 3 and 6 years: missing	0.39	0.31	0.73
Child between 6 and 10 years: no	0.55	0.60	0.24
Child between 6 and 10 years: yes	0.06	0.09	0.03
Child between 6 and 10 years: missing	0.39	0.31	0.73
Child between 10 and 15 years: no	0.52	0.59	0.23
Child between 10 and 15 years: yes	0.09	0.11	0.03
Child between 10 and 15 years: missing	0.39	0.31	0.73
Lone parent: no	0.83	0.82	0.87
Lone parent: yes	0.17	0.18	0.13
Profile: Integrated	0.03	0.07	0.13
Profile: Market, activation, promotion	0.10	0.14	0.37
Profile: About to develop	0.48	0.35	0.22
Profile: About to be stable	0.22	0.20	0.05
Profile: Support necessary	0.15	0.18	0.03
Profile: missing	0.03	0.08	0.21
Number of months employed: 1 years before	0.36	0.26	0.84
Number of months employed: 2-4 years before	1.85	2.02	5.63
Number of months employed: 5-7 years before	3.89	3.69	6.38

Number of months unemployed: 1 years before	9.09	9.72	8.41
Number of months unemployed: 2-4 years before	26.60	26.26	19.43
Number of months unemployed: 5-7 years before	16.26	15.28	11.71
Number of months seeking work: 1 years before	1.51	0.76	0.58
Number of months seeking work: 2-4 years before	3.15	1.76	1.33
Number of months seeking work: 5-7 years before	1.68	1.22	1.13
Number of months program: 1 years before	0.43	0.52	0.68
Number of months program: 2-4 years before	1.52	1.83	2.15
Number of months program: 5-7 years before	8.43	6.82	4.89
Employed at all in the last 7 years before	0.43	0.40	0.66
Regional unemployment rate (level of job centres)	11.00	10.36	9.58
Regional employment rate (level of job centres)	49.53	49.77	50.27
GDP per capita of employed person (level of job centres)	53,930.66	54,216.25	54,973.84
Pers. feature: responsibility	1.21	1.24	1.17
Pers. feature: achieve goals	1.59	1.62	1.51
Pers. feature: enjoying new things	1.27	1.32	1.23
Pers. feature: precise work	1.25	1.26	1.25
Pers. feature: teamwork	1.23	1.28	1.22
Pers. feature: encounters with friends	2.01	1.99	1.90
Pers. feature: lethargic	3.12	3.01	3.25
Pers. feature: perception of being needed	1.71	1.71	1.54
Pers. feature: good professional qualification	1.99	2.06	1.76
Pers. feature: very good job experience	1.77	1.88	1.71
Pers. feature: support for job search	2.51	2.49	2.32
Reading/writing in native language	1.98	2.09	1.97
Emails and web research	2.76	2.86	2.22
Friends: receivers of unemployment benefits	0.56	0.55	0.46
Friends: professional success	0.60	0.61	0.75
Friends: interest in professional situation	0.83	0.81	0.89
Problems: none	0.62	0.55	0.63
Problems: care for sick relative	0.11	0.12	0.10
Problems: psychological problems/addiction	0.04	0.05	0.03
Problems: indebtedness	0.15	0.17	0.16
Problems: family conflicts	0.09	0.11	0.09
Making an effort to find work? (4 weeks)	0.78	0.70	0.58
Concession: > 1,5h willingness to commute	2.64	2.69	2.66
Concession: unfavourable working hours	2.21	2.30	1.82
Concession: changing conditions	1.99	2.00	1.82
Concession: change of residence	3.27	3.22	3.01
Concession: less than 8€	2.75	2.69	2.82

Source: Sample of the IEB, IAW Survey on Publicly Employed, own calculations. Survey variables are self-assessments using either a four-point scale ranging from 0 (not at all) to 3 (totally), or school grades (from one to six), or indicator variables (one = yes and zero = no).

Table A.3 Estimation for Treatment Probability for Participants and Still Unemployed

Participation Probability	Specification						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Personal Characteristics	Former Job Information	Information on Unemployment Spell	Region and Job Centre Type	Employment Histories	Regional Information	Personal Characteristics
Female	0.0070 (0.0035)	-0.0049 (0.0036)	-0.0061 (0.0038)	-0.0039 (0.0038)	-0.0003 (0.0038)	-0.0013 (0.0039)	0.0026 (0.0162)
Male							
No graduate							
Intermediate school certificate. no professional qualification	0.0003 (0.0065)	-0.0117 (0.0063)	-0.0127 (0.0062)	-0.0084 (0.0062)	-0.0048 (0.0061)	-0.0036 (0.0062)	-0.0160 (0.0291)
High school degree or vocational training	0.0378 (0.0060)	0.0141 (0.0059)	0.0122 (0.0058)	0.0153 (0.0059)	0.0197 (0.0058)	0.0217 (0.0059)	0.0157 (0.0285)
High school degree and vocational training	0.0557 (0.0103)	0.0352 (0.0101)	0.0400 (0.0100)	0.0427 (0.0099)	0.0533 (0.0099)	0.0565 (0.0100)	0.0708 (0.0409)
Subject-linked university degree	0.0985 (0.0137)	0.0687 (0.0136)	0.0697 (0.0134)	0.0673 (0.0134)	0.0751 (0.0134)	0.0807 (0.0136)	0.0235 (0.0554)

University degree	0.0884 (0.0123)	0.0647 (0.0123)	0.0698 (0.0121)	0.0694 (0.0121)	0.0820 (0.0121)	0.0847 (0.0122)	0.0989 (0.0470)
Age in years	0.0056 (0.0011)	0.0070 (0.0010)	0.0056 (0.0010)	0.0053 (0.0010)	0.0042 (0.0010)	0.0043 (0.0010)	-0.0034 (0.0040)
Age group < 25 years	-0.2071 (0.0223)	-0.1697 (0.0210)	-0.1681 (0.0225)	-0.1673 (0.0227)	-0.1679 (0.0226)	-0.1617 (0.0228)	-0.2796 (0.0932)
Age group 25 until 30 years	-0.0263 (0.0128)	-0.0174 (0.0121)	-0.0206 (0.0121)	-0.0193 (0.0120)	-0.0164 (0.0120)	-0.0153 (0.0122)	-0.1391 (0.0497)
Age group 31 until 35 years	-0.0031 (0.0088)	-0.0010 (0.0083)	-0.0043 (0.0084)	-0.0050 (0.0083)	-0.0054 (0.0083)	-0.0041 (0.0084)	-0.0771 (0.0340)
Age group 36 until 40 years			(Reference Category)				
Age group 41 until 45 years	0.0050 (0.0081)	0.0012 (0.0077)	0.0013 (0.0076)	0.0013 (0.0075)	0.0009 (0.0075)	-0.0001 (0.0076)	0.0106 (0.0302)
Age group 46 until 50 years	0.0078 (0.0119)	0.0008 (0.0113)	-0.0023 (0.0112)	-0.0021 (0.0111)	0.0011 (0.0110)	-0.0023 (0.0112)	0.0802 (0.0446)
Age group 51 until 58 years	-0.0214 (0.0181)	-0.0244 (0.0173)	-0.0303 (0.0170)	-0.0287 (0.0169)	-0.0229 (0.0168)	-0.0261 (0.0170)	0.0846 (0.0686)
Age group > 58 years	-0.0398 (0.0247)	-0.0346 (0.0236)	-0.0400 (0.0233)	-0.0374 (0.0231)	-0.0332 (0.0230)	-0.0379 (0.0234)	0.1319 (0.0925)
Family Status: single			(Reference Category)				
Family Status: married/ living with a partner	-0.0201 (0.0041)	-0.0337 (0.0039)	-0.0273 (0.0060)	-0.0241 (0.0059)	-0.0236 (0.0059)	-0.0250 (0.0060)	-0.0183 (0.0233)
Family Status: divorced/widowed/living separately	-0.0224 (0.0046)	-0.0326 (0.0044)	-0.0227 (0.0045)	-0.0205 (0.0045)	-0.0167 (0.0044)	-0.0162 (0.0045)	-0.0073 (0.0182)
Citizenship: German			(Reference Category)				
Citizenship: other than German	-0.0967 (0.0065)	-0.0882 (0.0062)	-0.0748 (0.0061)	-0.0665 (0.0061)	-0.0595 (0.0061)	-0.0620 (0.0062)	0.0081 (0.0442)
Health problems: Yes	-0.0157 (0.0039)	-0.0003 (0.0038)	-0.0073 (0.0037)	-0.0049 (0.0037)	-0.0066 (0.0037)	-0.0059 (0.0038)	-0.0052 (0.0158)
Blue-collar worker			(Reference Category)				
White-collar worker		0.0345 (0.0166)	0.0353 (0.0162)	0.0304 (0.0160)	0.0255 (0.0159)	0.0261 (0.0161)	-0.0557 (0.0717)
Profession: no employment history		-0.0588 (0.0180)	-0.0515 (0.0175)	-0.0550 (0.0175)	-0.0421 (0.0175)	-0.0406 (0.0176)	-0.2692 (0.1443)
Profession: missing		0.4149 (0.0085)	0.4085 (0.0083)	0.4006 (0.0082)	0.3985 (0.0082)	0.3997 (0.0083)	0.4668 (0.0348)
Semi-skilled worker			(Reference Category)				
Professionally oriented activities		0.0060 (0.0049)	0.0067 (0.0048)	0.0066 (0.0048)	0.0024 (0.0047)	0.0016 (0.0048)	-0.0005 (0.0210)
Complex specialized activities		0.0281 (0.0074)	0.0297 (0.0073)	0.0287 (0.0073)	0.0257 (0.0072)	0.0247 (0.0073)	0.0141 (0.0294)
Highly complex activities		0.0278 (0.0074)	0.0303 (0.0073)	0.0279 (0.0073)	0.0241 (0.0072)	0.0230 (0.0073)	0.0237 (0.0289)
Complexity: missing		-0.0471 (0.0314)	-0.0447 (0.0305)	-0.0441 (0.0303)	-0.0377 (0.0299)	-0.0350 (0.0300)	0.2974 (0.1569)
Manufacturing/ processing trade / agriculture		0.0307 (0.0035)	0.0236 (0.0034)	0.0241 (0.0034)	0.0193 (0.0034)	0.0203 (0.0035)	0.0277 (0.0142)
Service sector			(Reference Category)				
Job returner: no			(Reference Category)				
Job returner: yes		0.0159 (0.0076)	0.0109 (0.0098)	0.0132 (0.0097)	0.0117 (0.0097)	0.0083 (0.0099)	0.0572 (0.0367)
Job returner: missing		-0.1166 (0.0388)	-0.0668 (0.0385)	-0.0583 (0.0382)	-0.0316 (0.0377)	-0.0333 (0.0379)	0.1774 (0.1682)
Reason for end of receiving social assistance benefits: start of work			(Reference Category)				
Reason for end of receiving social assistance benefits: relocation			-0.0535 (0.0055)	-0.0555 (0.0055)	-0.0515 (0.0055)	-0.0518 (0.0055)	-0.0412 (0.0228)
Reason for end of receiving social assistance benefits: omission of employment			0.0468 (0.0048)	0.0518 (0.0048)	0.0488 (0.0048)	0.0458 (0.0049)	0.0899 (0.0195)
Special status			-0.0426 (0.0072)	-0.0389 (0.0072)	0.0039 (0.0081)	0.0054 (0.0082)	0.0113 (0.0353)
Relieved receiving of benefit: children			0.0459 (0.0180)	0.0511 (0.0180)	0.0169 (0.0179)	0.0111 (0.0183)	-0.0299 (0.0795)
Relieved receiving of benefit: job returner			0.0432 (0.0117)	0.0420 (0.0117)	-0.0035 (0.0122)	-0.0059 (0.0124)	-0.0445 (0.0495)
Relieved receiving of benefit: none			(Reference Category)				
Dropout out of ALMP programme due to inappropriate behaviour			-0.0296 (0.0100)	-0.0343 (0.0100)	-0.0300 (0.0099)	-0.0268 (0.0101)	-0.0789 (0.0428)
Dropout out of ALMP programme due to other reasons			0.0054 (0.0083)	0.0101 (0.0083)	0.0113 (0.0082)	0.0093 (0.0084)	-0.0998 (0.0393)
ALMP programme completed successfully			(Reference Category)				
ALMP programme not completed successfully			0.0109 (0.0082)	0.0068 (0.0082)	0.0026 (0.0081)	-0.0022 (0.0083)	-0.0200 (0.0343)
Child < 3 years: no			(Reference Category)				
Child < 3 years: yes			-0.0255 (0.0114)	-0.0215 (0.0114)	-0.0213 (0.0112)	-0.0230 (0.0114)	0.0462 (0.0521)

Child < 3 years: missing	0.0626 (0.0036)	0.0630 (0.0037)	0.0637 (0.0036)	0.0646 (0.0037)	0.0735 (0.0150)
Child between 3 and 6 years: no	(Reference Category)				
Child between 3 and 6 years: yes	0.0187 (0.0098)	0.0221 (0.0098)	0.0229 (0.0097)	0.0263 (0.0098)	-0.0004 (0.0439)
Child between 6 and 10 years: no	(Reference Category)				
Child between 6 and 10 years: yes	0.0157 (0.0073)	0.0168 (0.0073)	0.0187 (0.0072)	0.0184 (0.0073)	-0.0175 (0.0295)
Child between 10 and 15 years: no	(Reference Category)				
Child between 10 and 15 years: yes	0.0259 (0.0066)	0.0252 (0.0066)	0.0262 (0.0065)	0.0268 (0.0066)	0.0397 (0.0260)
Role within household: main person	(Reference Category)				
Role of within household: partner	-0.0099 (0.0057)	-0.0084 (0.0057)	-0.0008 (0.0056)	-0.0008 (0.0057)	0.0414 (0.0234)
Role of within household: minor	0.0628 (0.0283)	0.0703 (0.0284)	0.0684 (0.0281)	0.0672 (0.0283)	0.0131 (0.1453)
Number of persons in household: 1	(Reference Category)				
Number of persons in household: 2	-0.0160 (0.0087)	-0.0141 (0.0087)	-0.0099 (0.0086)	-0.0090 (0.0087)	-0.0232 (0.0347)
Number of persons in household: 3	-0.0331 (0.0104)	-0.0325 (0.0104)	-0.0234 (0.0103)	-0.0227 (0.0105)	-0.0451 (0.0415)
Number of persons in household: 4	-0.0380 (0.0122)	-0.0375 (0.0122)	-0.0267 (0.0121)	-0.0268 (0.0123)	-0.0531 (0.0490)
Number of persons in household: 5 or more	-0.0656 (0.0144)	-0.0648 (0.0144)	-0.0506 (0.0143)	-0.0488 (0.0145)	-0.0649 (0.0580)
Number of persons of age able to work: 1	(Reference Category)				
Number of persons of age able to work: 2	0.0253 (0.0078)	0.0227 (0.0078)	0.0167 (0.0077)	0.0172 (0.0078)	-0.0038 (0.0301)
Number of persons of age able to work: > 2	0.0364 (0.0111)	0.0331 (0.0111)	0.0244 (0.0110)	0.0254 (0.0112)	0.0068 (0.0441)
Number of persons under age able to work: 0	0.0072 (0.0169)	0.0075 (0.0170)	0.0078 (0.0169)	0.0060 (0.0170)	-0.0056 (0.0723)
Number of persons under age able to work: 1	0.0070 (0.0171)	0.0089 (0.0171)	0.0078 (0.0170)	0.0058 (0.0171)	-0.0216 (0.0730)
Number of persons under age able to work: > 1	(Reference Category)				
Number of unemployed persons: 0	(Reference Category)				
Number of unemployed persons: 1	-0.0125 (0.0117)	-0.0139 (0.0117)	-0.0160 (0.0116)	-0.0136 (0.0118)	-0.0261 (0.0450)
Number of unemployed persons: > 1	0.0617 (0.0721)	0.0610 (0.0720)	0.0459 (0.0707)	0.0473 (0.0706)	-0.1124 (0.2116)
Number of persons above age limit: 0	(Reference Category)				
Number of persons above age limit: 1 or more	0.0065 (0.0243)	-0.0037 (0.0243)	-0.0154 (0.0243)	-0.0232 (0.0248)	-0.0888 (0.1052)
Lone parent: no	(Reference Category)				
Lone parent: yes	-0.0044 (0.0074)	-0.0057 (0.0074)	-0.0029 (0.0073)	-0.0027 (0.0074)	-0.0192 (0.0292)
Profile: Integrated	(Reference Category)				
Profile: Market. activation. promotion	0.0986 (0.0089)	0.0982 (0.0089)	0.0982 (0.0088)	0.0968 (0.0089)	0.1895 (0.0353)
Profile: About to develop	0.2028 (0.0080)	0.2009 (0.0079)	0.1961 (0.0079)	0.1943 (0.0080)	0.2965 (0.0323)
Profile: About to be stable	0.1910 (0.0084)	0.1938 (0.0084)	0.1889 (0.0084)	0.1865 (0.0085)	0.3224 (0.0343)
Profile: Support necessary	0.1736 (0.0087)	0.1798 (0.0087)	0.1753 (0.0086)	0.1735 (0.0088)	0.2927 (0.0367)
Profile: missing	-0.0100 (0.0109)	-0.0111 (0.0110)	-0.0105 (0.0109)	-0.0118 (0.0110)	0.0419 (0.0452)
Responsible administrative body: ARGE/gE	(Reference Category)				
Responsible administrative body: gT/gAw	(Reference Category)				
Responsible administrative body: zkT	(Reference Category)				
Regional empl. agency: Baden-Württemberg	(Reference Category)				
Regional empl. agency: Bayern	-0.0080 (0.0094)	-0.0041 (0.0093)	0.0065 (0.0097)	0.0275 (0.0426)	0.0275 (0.0426)
Regional empl. agency: Brandenburg	0.1026 (0.0087)	0.0850 (0.0087)	0.0664 (0.0114)	0.0815 (0.0482)	0.0815 (0.0482)
Regional empl. agency: Hessen	0.0291 (0.0114)	0.0312 (0.0112)	0.0279 (0.0114)	0.0531 (0.0559)	0.0531 (0.0559)
Regional empl. agency: Niedersachsen/Bremen	0.0702 (0.0097)	0.0670 (0.0096)	0.0512 (0.0103)	0.0874 (0.0445)	0.0874 (0.0445)
Regional empl. agency: Nord	0.0984 (0.0091)	0.0885 (0.0091)	0.0790 (0.0114)	0.1101 (0.0490)	0.1101 (0.0490)
Regional empl. agency: Nordrhein-Westfalen	0.0687 (0.0093)	0.0650 (0.0092)	0.0524 (0.0101)	0.0765 (0.0468)	0.0765 (0.0468)
Regional empl. agency: Rheinland-Pfalz/Saarland	0.1154	0.1080	0.1109	0.1229	0.1229

	(0.0094)	(0.0093)	(0.0098)	(0.0413)
Regional empl. agency: Sachsen	0.0989	0.0924	0.0841	0.1344
	(0.0096)	(0.0095)	(0.0128)	(0.0533)
Regional empl. agency: Sachsen-Anhalt/Thüringen	0.0339	0.0291	0.0205	0.0491
	(0.0082)	(0.0082)	(0.0121)	(0.0521)
No. of months employed: 1 year before		0.0051	0.0052	0.0064
		(0.0014)	(0.0014)	(0.0054)
No. of months employed: 2-4 years before		-0.0002	-0.0003	-0.0014
		(0.0004)	(0.0004)	(0.0018)
No. of months employed: 5-7 years before		0.0009	0.0009	0.0016
		(0.0003)	(0.0003)	(0.0012)
No. of months unemployed: 1 year before		-0.0020	-0.0016	-0.0024
		(0.0008)	(0.0008)	(0.0033)
No. of months unemployed: 2-4 years before		0.0009	0.0008	-0.0003
		(0.0003)	(0.0003)	(0.0012)
No. of months unemployed: 5-7 years before		0.0011	0.0011	0.0015
		(0.0003)	(0.0003)	(0.0010)
No. of months seeking work: 1 year before		0.0081	0.0082	0.0003
		(0.0011)	(0.0011)	(0.0041)
No. of months seeking work: 2-4 years before		0.0037	0.0036	0.0055
		(0.0005)	(0.0005)	(0.0018)
No. of months seeking work: 5-7 years before		0.0031	0.0031	-0.0000
		(0.0006)	(0.0006)	(0.0022)
No. of months program: 1 year before		-0.0019	-0.0020	-0.0030
		(0.0013)	(0.0013)	(0.0051)
No. of months program: 2-4 years before		0.0004	0.0004	-0.0020
		(0.0005)	(0.0005)	(0.0019)
No. of months program: 5-7 years before		0.0023	0.0022	0.0018
		(0.0003)	(0.0003)	(0.0010)
Employed at all in the last 7 years before		0.0133	0.0128	-0.0071
		(0.0042)	(0.0042)	(0.0169)
Regional unemployment rate			0.0064	0.0030
			(0.0009)	(0.0034)
Regional employment rate			0.0014	-0.0004
			(0.0005)	(0.0021)
Regional GDP per capita			0.0000	0.0000
			(0.0000)	(0.0000)
Migration background				-0.0299
				(0.0309)
Pers. feature: responsibility				-0.0046
				(0.0146)
Pers. feature: achieve goals				0.0038
				(0.0099)
Pers. feature: enjoying new things				-0.0377
				(0.0134)
Pers. feature: precise work				0.0323
				(0.0149)
Pers. feature: teamwork				-0.0056
				(0.0130)
Pers. feature: encounters with friends				0.0104
				(0.0071)
Pers. feature: lethargic				0.0002
				(0.0073)
Pers. feature: perception of being needed				-0.0066
				(0.0079)
Pers. feature: good professional qualification				0.0127
				(0.0077)
Pers. feature: very good job experience				-0.0057
				(0.0085)
Pers. feature: support for job search				0.0002
				(0.0062)
Health status				-0.0080
				(0.0061)
Willingness to work: less than 3 hours				-0.2013
				(0.1043)
Willingness to work: 3 to less than 6 hours				0.0208
				(0.0852)
Willingness to work: 6 to less than 8 hours				0.1098
				(0.0846)
Willingness to work: 8 hours or more				0.0951
				(0.0846)
Reading/writing skills in native language				-0.0158
				(0.0084)
Calculating skills				0.0068
				(0.0078)

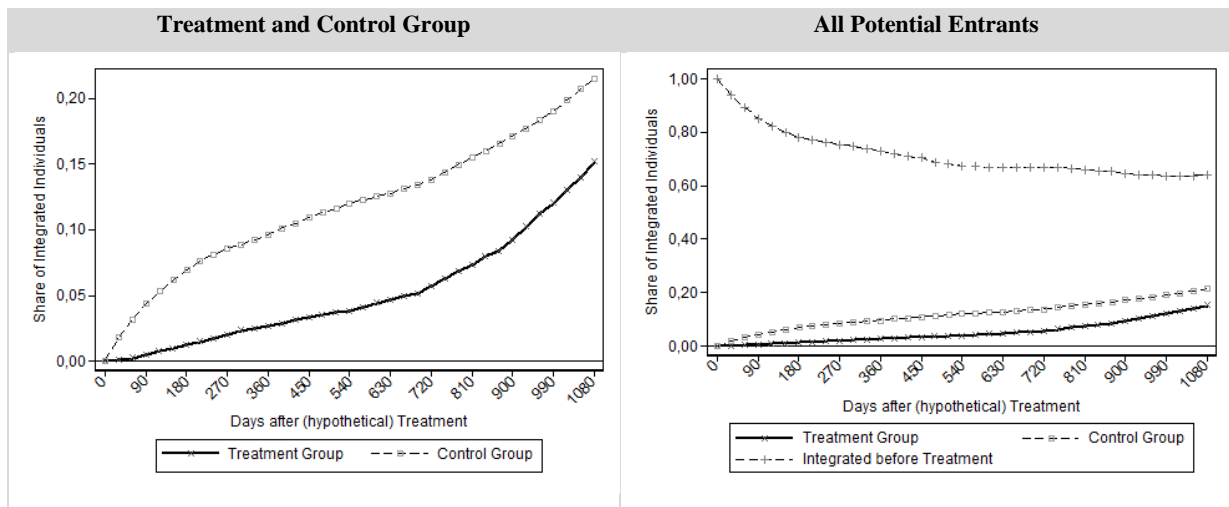
Emails and web research skills	-0.0078 (0.0050)
Driver's licence	0.0023 (0.0166)
Availability of car: yes	0.0364 (0.0174)
Friends: receivers of unemployment benefits	-0.0071 (0.0144)
Friends: professional success	-0.0223 (0.0147)
Friends: interest in professional situation	0.0174 (0.0193)
Support: partner	0.0049 (0.0165)
Support: family, relatives	0.0289 (0.0154)
Support: friends	0.0208 (0.0153)
Support: support group	-0.0776 (0.0391)
Support: job centre	0.0343 (0.0372)
Support: (former) colleagues	0.0505 (0.0872)
Support: (former) employer	0.0798 (0.0814)
Support: advisor/caregiver	0.0302 (0.0846)
Support: doctor/therapist	0.0895 (0.0858)
Support: social facility/church	-0.1675 (0.1404)
Support: responsible administrative body	0.0470 (0.0803)
Support: others	0.0488 (0.0734)
Support: none	0.0187 (0.0259)
Problems: none	0.0282 (0.0234)
Problems: home care	0.0106 (0.0283)
Problems: psychological problems/addiction	-0.0252 (0.0379)
Problems: indebtedness	0.0090 (0.0263)
Making an effort to find work? (4 weeks)	-0.1599 (0.2566)
Application: in written form	0.2256 (0.2573)
Application: by phone	0.2129 (0.2589)
Application: personal presentation	0.2148 (0.2571)
Application: contacted job centre staff	0.2501 (0.2592)
Application: other	0.2163 (0.2564)
No. of job interviews (6 months)	0.0002 (0.0013)
Concession : > 1.5h to get to work	0.0045 (0.0062)
Concession: unfavourable working hours	0.0002 (0.0063)
Concession: changing working conditions	0.0010 (0.0066)
Concession: change of residence	0.0017 (0.0065)
Concession: working for less than 8€	0.0063 (0.0060)
Perception of participation in society	0.0015 (0.0029)
Evaluation of current situation in household	0.0017 (0.0033)
Expectation of future situation	-0.0054 (0.0045)

No. of Observations	59.717	59.717	59.522	59.29	59.29	57.498	4.262
Chi ²	2,068.82	8,831.53	10,850.86	11,480.27	12,243.21	11,918.21	1,185.82
Pseudo R ²	0.0322	0.1373	0.1693	0.1799	0.1918	0.1932	0.2217

Source: Sample of the IEB, IAW Survey on Publicly Employed, own calculations.

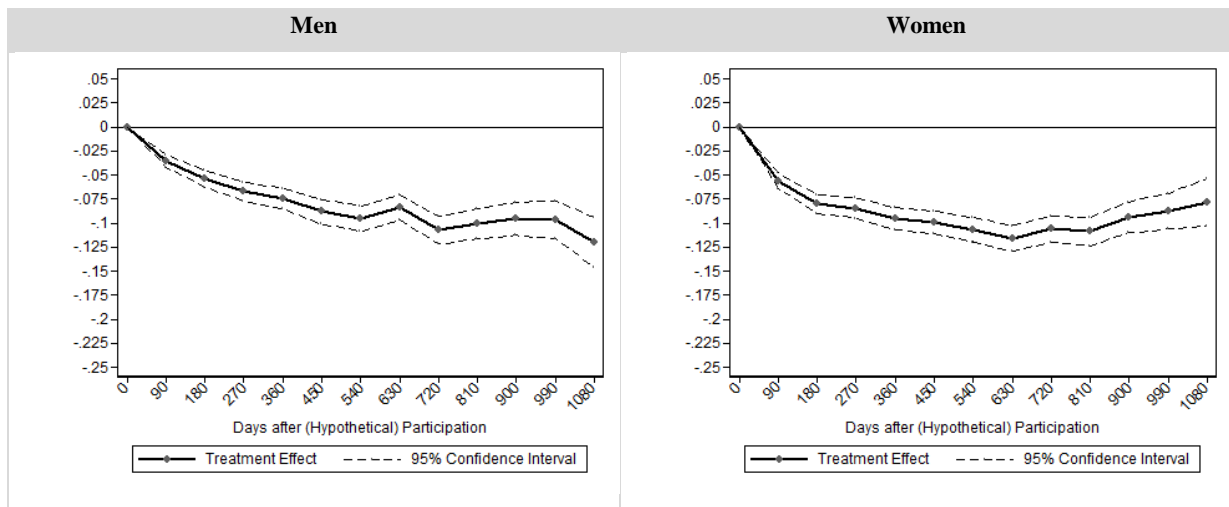
Additional Figures

Figure A.1: Probabilities of Integration in the Labour Market of Participants and (Potential) Control Observations



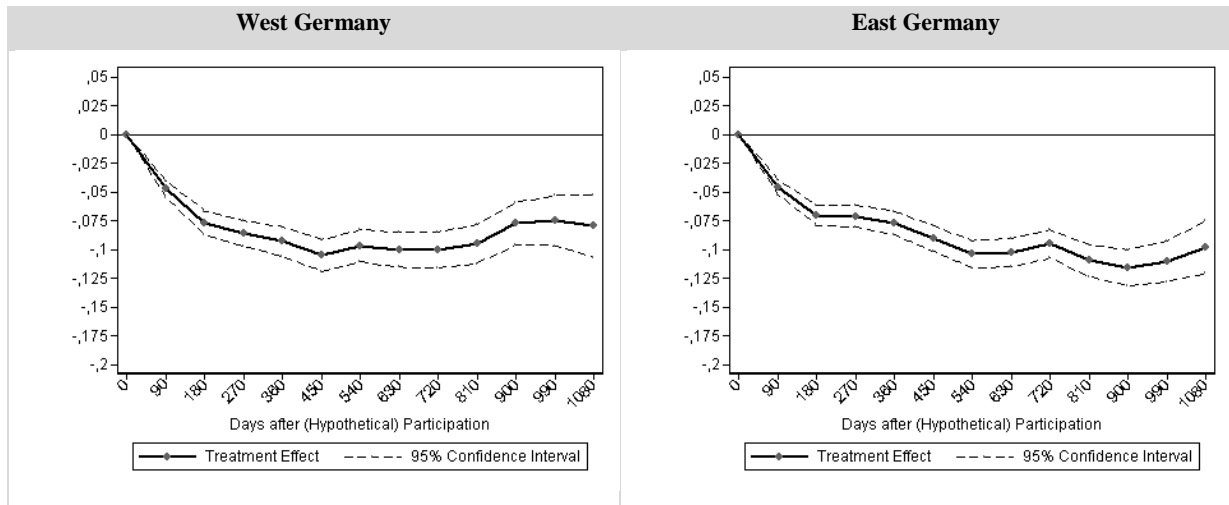
Source: Sample of the IEB, own calculations. Participation in the job creation scheme does not count as integration in the labour market.

Figure A.2: ATT of Participation in the Employment Period on Integration into the First Labour Market, Differentiated by Gender



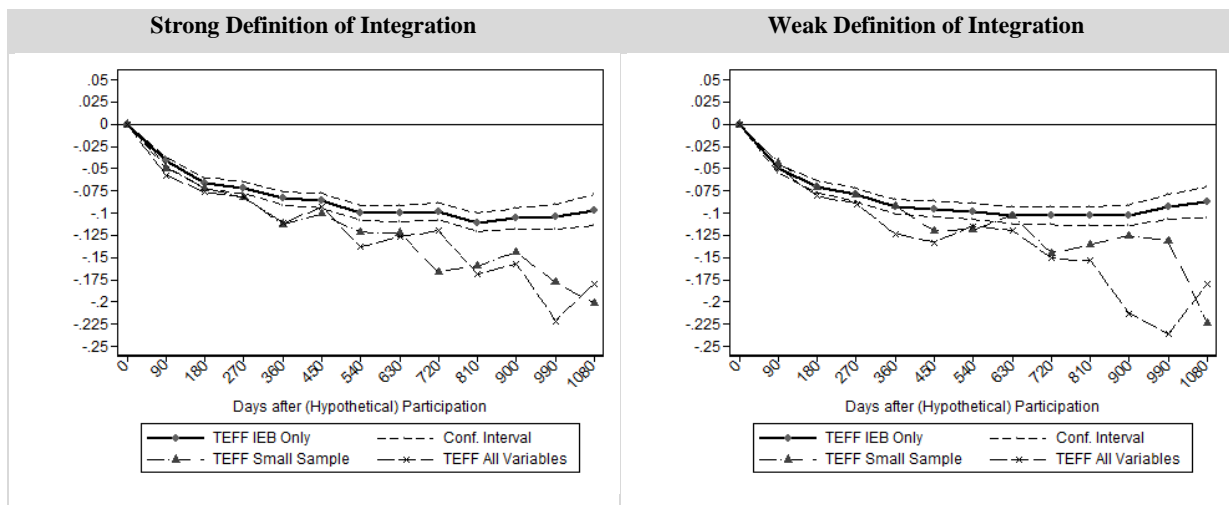
Source: Sample of the IEB, own calculations. Participation in the job creation scheme does not count as integration in the labour market.

Figure A.3: ATT of Participation in the Employment Period on Integration into the First Labour Market, Differentiated by Region



Source: Sample of the IEB, own calculations. Participation in the job creation scheme does not count as integration in the labour market.

Figure A.4: ATT of Participation in the Employment Period on Integration into the First Labour Market



Source: Sample of the IEB, own calculations. Participation in the job creation scheme does not count as integration in the labour market.