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Effectiveness of One-Euro-Jobs

Do programme characteristics matter?

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Contents

Abstract	4
Zusammenfassung	4
1 Introduction	6
2 Institutional framework	7
3 Theoretical framework: The job search model	10
4 Previous findings	14
5 Evaluation approach and method	17
6 Data and implementation	20
7 Results	22
7.1 Programme selectivity	22
7.2 Matching quality	24
7.2.1 Common support	24
7.2.2 Balancing of the covariates	25
7.2.3 Robustness and sensitivity of results	26
7.3 Overall effects of participation	27
7.4 Effects by planned duration	29
7.5 Effects by working hours	30
8 Summary and conclusion	32
References	34
Tables and figures	39

Abstract

Recent labour market reforms in Germany introduced a workfare programme called One-Euro-Jobs with roughly 700,000 means-tested benefit recipients participating per year. In programme design leeway is given to local actors to respond to regional and individual factors. The legislature has set only key features of One-Euro-Jobs: One-Euro-Jobs are required to be additional and temporary jobs of public interest. Using administrative data for participants who entered the programme in spring 2005 this paper investigates medium-term effects of the programme and the association between flexibility in design and effect heterogeneity. First, effects of different types of One-Euro-Jobs (according to planned duration and weekly working hours) compared to non-participation ('waiting') are estimated and second, programme types are compared directly by pairwise matching to disentangle selection and programme effects.

As expected lock-in effects are larger for participation with a longer planned duration, whereas this is not the case for more intensive programmes in terms of working hours. In the medium term, One-Euro-Jobs do not generally increase the employment prospects for men in East Germany beyond two years after programme start and longer and more intensive participations even decrease employment prospects. In West Germany, One-Euro-Jobs in general increase the employment chances and longer participations lead to slightly higher employment opportunities roughly two years after programme start. The initial advantages of short participations decrease over time.

Zusammenfassung

Nach ihrer Einführung im Jahre 2005 haben Ein-Euro-Jobs sich zu dem meist verwendeten Instrument der aktiven Arbeitsmarktpolitik für Arbeitslosengeld-II-Bezieher entwickelt. In ihrer Gestaltung besteht Spielraum für lokale Akteure, um auf regionale und individuelle Besonderheiten der Arbeitslosen einzugehen. Dieses Papier untersucht mit Hilfe von administrativen Daten zum einen die mittelfristigen Wirkungen von Ein-Euro-Jobs auf die Beschäftigungschancen von Teilnehmern, die im Frühjahr 2005 einen Ein-Euro-Job begonnen haben, und zum anderen, wie das Programm-design die Effektivität beeinflusst. Erstens werden für verschiedene Typen von Ein-Euro-Jobs nach geplanter Dauer und Wochenstundenzahl die Effekte im Vergleich zu einer Nicht-Teilnahme („waiting“) geschätzt. Anschließend werden die verschiedenen Typen paarweise verglichen, um Programm- und Selektionseffekte trennen zu können.

Längere Programme weisen - wie erwartet - höhere Einsperreffekte auf, während dies für zeitintensivere Programme nicht der Fall ist. Die mittelfristigen Effekte hängen von der jeweiligen betrachteten Gruppe ab: Männern in Ostdeutschland hilft eine Teilnahme nicht, und längere und intensivere Programme reduzieren sogar ihre

Beschäftigungschancen. Für westdeutsche Männer und Frauen haben Ein-Euro-Jobs leicht positive Effekte und längere Programme haben mittelfristig sogar etwas höhere Beschäftigungseffekte. Die Vorteile kürzerer Teilnahmen verlieren mittelfristig an Bedeutung.

JEL classification: C13, I38, J68

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1 Introduction

In 2005, major reforms of the German unemployment benefit system came into force, which are regulated in the new Social Code II. The reforms led to a stronger emphasis on the activation of unemployed people. As one means of activation, a workfare programme called 'One-Euro-Jobs' was implemented on a large scale with roughly two million means-tested benefit recipients entering the programme in the first three years. On the one hand, One-Euro-Jobs aim at improving the employability of participants and thus enhancing their labour market prospects. On the other hand, they can also be used as a work-test to check whether unemployed people are available for job placement. In designing the programme, wide scope is left to regional actors to respond to regional and individual factors of the unemployed. The legislator has set only key features of One-Euro-Jobs: One-Euro-Jobs have to be of public interest and additional to regular employment in order to prevent crowding out of regular employment. Participation in a One-Euro-Job is only temporary and should only be applied, if no other opportunity, like regular employment, further training, vocational training, or other programmes, is available or suitable. Thus, the programme has been designed for those unemployed particularly hard to place. In further aspects such as exact duration and weekly working hours there is leeway for regional actors. This paper investigates first how One-Euro-Jobs affect the participants' labour market performance in the short and medium term and then how the flexible programme aspects are associated with heterogeneity in the effects of participation in the programme on the labour market performance of participants.

To my knowledge, there are only two studies analysing the effectiveness of One-Euro-Jobs so far (Hohmeyer/Wolff 2007, Huber et al. 2009). Overall twenty months after programme start, the effects of participation on the employment probability are weak and only some groups of participants benefit from participation (Hohmeyer/Wolff 2007). As One-Euro-Jobs have to be additional jobs of public interest and are supposed to be one of the first steps in the integration process of hard-to-place individuals, large effects cannot be expected in the short term. It is also essential to learn about the medium term effects. Data on a sufficiently long time window to study medium term effects have become available only recently. This paper examines the labour market effects 28 months after programme start for regular employment and 32 months for further outcomes like unemployment benefit II (UB II) receipt, which is a significantly longer time span than examined by recent research. As One-Euro-Jobs aim at increasing the employability as one of the first steps in the integration process, we do not only look at regular employment and benefit receipt, but also at participation in active labour market programmes (ALMPs) and subsidized employment as outcome variables.

We then compare different types of One-Euro-Jobs according to planned duration of participation and average weekly working hours. As the first step, we estimate the effects of participation for the different types of One-Euro-Jobs compared to non-participation ('waiting'). These analyses show how the different programme types affect the labour market prospects of participants. However, they do not enable us

to compare the effectiveness of the programme types because differences in the effectiveness of programme types can be caused either by different programme characteristics or by differences in the participant structure. E.g., if case managers place hard-to-place unemployed people in One-Euro-Jobs with a longer duration and if One-Euro-Jobs are more effective for this group, then net impacts increase with planned duration, but this would reflect a spurious correlation reflecting effect heterogeneity for different groups of participants and not for different programme designs. In order to control for selectivity of the different programme types, the types are also compared directly. The effects of a One-Euro-Job of one type are compared to the effects of a One-Euro-Job of another type for a given group of participants.

From a theoretical point of view, effects of participation in general and of certain programme features are not straightforward: For example, longer programme participation may on the one hand lead to a larger treatment effect, because the goals of increasing the employability and activating the unemployed can be achieved more easily. On the other hand, a longer duration may reduce the job search efforts of participants and thus lead to stronger lock-in effects. Similarly, a higher level of working hours may facilitate getting used to regular work schedules for the unemployed, but it may also lead to stronger lock-in effects.

By comparing the effects of different programme types, this paper sheds some light on the question how One-Euro-Jobs can be designed to become more effective. Analysing the effects of programme characteristics is not only interesting from a practical point of view, but also from a scientific perspective, since there is not much research on the relationship of programme features and the effectiveness of a programme so far. Most of the existing studies compare different programmes diverging in more than just one aspect. Furthermore, only some studies disentangle selectivity and participation effects, such that in most studies differences in effects cannot be traced back to programme features. Moreover, most studies focus on unemployment insurance benefit recipients and not on welfare recipients, for whom programme characteristics may play a different role than e.g. for unemployment insurance benefit recipients, who have better labour market prospects on average.

The paper is organised as follows: In section two the institutional framework of One-Euro-Jobs and of their legal framework Social Code II is described. Subsequently, in section three hypotheses on the effects of programme characteristics are derived from a theoretical job search framework. Section four summarises the lessons learned from previous research. Methods and data are described in section five and six. The results are discussed in section seven. Section eight provides the conclusions. All tables and figures are displayed in the Appendix.

2 Institutional framework

Major reforms of the unemployment compensation system came into force in 2005 with the introduction of Social Code II. The former unemployment assistance and

social assistance were merged to unemployment benefit II for needy individuals capable of working.¹ The reforms lead to a stronger emphasis on activation policies.² This particularly concerns those benefit recipients previously serviced by social assistance offices, because they were neither necessarily registered as unemployed nor did they have access to most types of active labour market policies (ALMPs).

The strategy of activating needy unemployed people is pursued by the implementation of the principle of “enabling and demanding” (“Fördern und Fordern”) leading to a system of mutual obligations: On the one hand, the reforms demand a certain effort of the unemployed to search for employment and unemployment benefits can be cut if job search efforts are insufficient. On the other hand, the reform provides more possibilities of assisting unemployed people towards taking up employment.

One option of activating unemployed means-tested benefit recipients is given by public employment programmes, such as work opportunities, that have been introduced for UB II recipients in 2005. Two types of work opportunities exist: (1) (Contributory) work opportunities where a subsidised wage is paid and (2) work opportunities with an allowance of about one to 1.5 Euros per hour worked which is paid in addition to UB II. The second type is also known as “One-Euro-Jobs”. More than 95 % of work opportunities are of this latter type, so that this paper focuses on One-Euro-Jobs. In each of the first four years of the programme between 600,000 and 705,000 unemployed individuals started a One-Euro-Job, which is a remarkable figure taking into account that the stock of unemployed UB II recipients averaged between 2.0 and 2.4 million (Table 1). In terms of inflow, One-Euro-Jobs are the largest programme for means-tested benefit recipients.

Goals of One-Euro-Jobs

One-Euro-Jobs have various aims (Federal Employment Agency 2005). First, they should raise the employability of long-term unemployed and enhance their probability of finding regular employment. Furthermore, they aim at the social integration of needy unemployed persons by providing them with a task and a daily routine. Moreover, they can be seen as a contribution to the provision of public goods by benefit recipients who work for their UB II receipt. Finally, One-Euro-Jobs are also a means of testing an unemployed individual’s willingness to work. Benefits can be cut, if a benefit recipient fails to start or discontinues participating in a One-Euro-Job that s/he is placed in.

¹ The former unemployment insurance (UI) benefit was labelled “unemployment benefit I”. It is earnings-related with a replacement rate of 67 percent for a parent with a dependent child and 60 percent for others. The UI benefit in contrast to UB II is time-limited. The maximum duration of UI receipt depends on age and was one year for those aged younger than 45 in the year 2005. It increased for older age groups and those older than 56 years could even receive their UI benefit for up to 32 months. However, the maximum duration for those older than 44 years though was reduced considerably in 2006.

² For a comprehensive description of the reforms see Jacobi/Kluve (2007).

According to these goals, One-Euro-Jobs have both a supporting and demanding nature and they - like other active labour market programmes - consist of a combination of “carrot” and “stick” (Graversen/van Ours 2008). This ambiguous role of the programme is also reflected in the perception of the programme by the unemployed (Lohmann 2007, Wenzel 2008).

Target groups

In principle, all recipients of UB II capable of working are eligible for participation in a One-Euro-Job. But there are groups of UB II recipients, who should be more or less likely to participate in the programme. Participation is subordinate to regular employment, vocational training and other active labour market programmes. This means that only those unemployed individuals are supposed to participate for whom no other opportunity like regular employment, further training, vocational training, or other programmes, is available or suitable. Thus, they are a measure of last resort and unemployed persons with specific difficulties to find a job should be more likely to participate in One-Euro-Jobs than those with better prospects of finding a job. This at least partly conflicts with the idea that the programme should serve as a work-test. Hence, it is not surprising that in 2005 One-Euro-Jobs indeed are not targeted at those groups of unemployed people, who are hard to place (Hohmeyer/Kopf 2009, Hohmeyer/Schöll/Wolff 2006, Wolff/Hohmeyer 2006). There may be several reasons for this: Cream skimming, the use of One-Euro-Jobs as a work test, the lack of suitable One-Euro-Jobs for hard-to-place benefit recipients or any combination of these causes.

Moreover, the Federal Employment Agency defined special target groups for One-Euro-Jobs within the Social Code II compendium (Federal Employment Agency 2006a). These are young adults, unemployed individuals with placement barriers, persons with migration background and older unemployed. Again, recent research on the structure of participants does not find a focus on these groups in 2005, except for young unemployed under the age of 25 years, who by law have to be placed to employment, vocational training or a One-Euro-Job without delay (Hohmeyer/Kopf 2009, Wolff/Hohmeyer 2006).³ The focus on younger unemployed persons can be found for 2005 to 2008.

Design of One-Euro-Jobs

The tasks carried out in One-Euro-Jobs have to be of public interest and additional in the sense that they would not be completed without the subsidy (Social Code II, Art. 16d). This way, policy makers intend to ensure that regular employment is not crowded out by One-Euro-Jobs. Apart from these requirements the legislature leaves wide scope to regional actors in designing One-Euro-Jobs to enable them to respond to the regional specifics and the personal situation of the unemployed

³ The Federal Employment Agency implemented this requirement by pronouncing the goal that young unemployed people should be registered as unemployed for no longer than three months (Federal Employment Agency 2006b).

(Federal Employment Agency 2005). Bellmann/Hohendanner/Promberger (2006) find that One-Euro-Jobs are concentrated in certain industries, such as the public sector, education, health or culture.

Concerning the duration of participation, it is merely said that participants must not be employed in One-Euro-Jobs permanently. In 2005, participation usually lasted up to six months (Hohmeyer/Schöll/Wolff 2006). While working in a One-Euro-Job, a participant still receives his/her means-tested unemployment benefit plus an allowance for additional expenses. This allowance for additional expenses is regarded as appropriate, if it averages at least one Euro per hour worked and an incentive remains for the participant to search for regular employment (Federal Employment Agency 2005). In 2005, the allowance for additional expenses usually amounted to one Euro to 1.60 € and averaged 1.25 € per hour worked (Federal Employment Agency - Statistics 2006).

To ensure that participants have sufficient time to search for regular employment, One-Euro-Jobs are supposed to be part-time jobs with an average working time of no more than 30 hours per week. One-Euro-Jobs in the majority of cases have a planned working time of 30 hours per week (Federal Employment Agency - Statistics 2006, 2007). However, weekly working hours can be designed variably with respect to the special situation of the unemployed.

Taking into account the average allowance for additional expenses of roughly 1.25 € per hour worked, the allowance for a benefit recipient working 30 hours per week adds up to about 150 € per month in addition to UB II. UB II consists of a base benefit currently (since 07/2009) of 359 € per month for a single person plus costs of accommodation and heating and an additional benefit for those who have received unemployment insurance (UI) benefit within the last two years (Art. 24, Social Code II).⁴

3 Theoretical framework: The job search model

We employ the framework of the job search model to discuss the impact of One-Euro-Jobs and programme characteristics on labour market prospects of participants (Burdett/Mortensen 1978, Mortensen 1970, 1986). We use the specification of the job search model with an unemployed individual maximising his/her expected utility by choosing the reservation wage (which is the lowest wage that s/he will accept) and the job search intensity as displayed in Cahuc/Zylberberg (2004). In this model, the wage is the only relevant aspect of jobs offered. The job seeker does not

⁴ The additional benefit amounts to two-thirds of the difference between the sum of the former UI and housing benefit receipt and the current UB II benefit level in the first year after running out of UI receipt. However, there is an upper cap for the additional benefit of 160 € for singles and 320 € for partners. For each child, living in the household the upper cap is raised by 60 €. In the second year after exhausting UI benefit receipt, the additional benefit is cut by 50 percent.

know the exact wage each job pays, but only the cumulative distribution of possible wages.

The expected duration of unemployment and thus the probability to take up a job in a given time period is determined by the reservation wage and the arrival rate of job offers, which are themselves influenced by factors such as job search intensity, personal characteristics or participation in a One-Euro-Job. Consequently, this framework enables us to connect the job seeker's situation, such as participation in a One-Euro-Job of a certain type with job search behaviour and employment prospects. We discuss potential impacts of participation in a One-Euro-Job with certain characteristics on the reservation wage, on job search intensity and on the probability of receiving a wage offer in order to assess the effects of One-Euro-Jobs and certain programme characteristics on the employment probability of the unemployed.⁵

Effects of participation in One-Euro-Jobs

Participation in a One-Euro-Job can have various effects on the reservation wage and the wage offers received and thus on the employment probabilities of unemployed. On the one hand, active labour market programmes such as One-Euro-Jobs may raise the employment probabilities of participants. Calmfors (1994) as well as Hagen and Steiner (2000) mention some reasons for this: First of all, qualifications of job searchers adjust to requirements of job vacancies. According to human capital theory adjustment becomes necessary as unemployment leads to loss of human capital and structural change causes shifts in qualification requirements. In this context, One-Euro-Jobs could be beneficial, since participants may be trained on the job. Moreover, by participating in the programme, long-term non-employed people could compensate for a loss of basic skills, e.g., if they are no longer used to regular work schedules. This might increase the participants' probability of getting a job offer above their reservation wage. Second, One-Euro-Job participation could also lead to a rise in the arrival rate of job offers, because it signals potential employers the participant's willingness to work. Finally, One-Euro-Jobs could raise the search effort of participants: One-Euro-Jobs may reduce the value of benefit receipt due to a loss of leisure and due to making it harder to achieve earnings in the shadow economy. It is assumed that higher search intensity leads to a higher arrival rate of job offers.

But adverse effects also can occur. First, lock-in effects can arise, reducing efforts made by unemployed people to search for employment, e.g., because participation reduces the time available for job search during participation and may lead to financial disincentives, if an allowance for additional expenses is paid. Furthermore, par-

⁵ Job search theory originally investigates the effects of exogenous variables on the period of time until a job offer is accepted by the unemployed, which is typically a survival analysis framework. We have a slightly different approach, as we look at the employment status at different points in time after programme start. We assume that effects point in the same direction, that is, a shorter duration until a job offer is accepted is correlated with a higher likelihood of being employed at different points in time.

participation can reduce the motivation to look for employment, because participants derive some utility from programme participation, e.g., due to carrying out a useful task instead of being unemployed. Job search efforts can already decline before participation started, if the individual knows about the participation in advance (“Ashenfelter’s Dip”). Moreover, the programme itself could lead to stigmatisation of participants, because employers possibly do not regard the programme as equivalent to regular employment or other forms of qualification (stigma effect). This is likely to be the case, if a programme like One-Euro-Jobs is supposed to target people with specific difficulties to find a job, such as long-term unemployed people. Furthermore, Mortensen (1970) emphasises the two potential effects of skills going in opposite directions. Increased skills lead to an increase in the arrival rate of job offers and thus to a higher probability of taking up employment (direct effect). On the other hand, the higher arrival rate of job offers can also lead to an increase in the reservation wage and thus to a lower probability of taking up a job (indirect effect). Therefore, it is not clear whether an increase in skills caused by participation in an ALMP such as One-Euro-Jobs raises the employment prospects.

Consequently, the actual effect of One-Euro-Jobs on the employment probability of participants is not obvious a priori. It has to be quantified by econometric research. We would expect lock-in effects in the short run and positive effects in the medium term, if the programme is successful. For a number of reasons, the effectiveness of the programme should not only vary for different groups of unemployed (as observed in Hohmeyer/Wolff 2007), but also for different programme designs. The impacts of different programme features are discussed below.

Furthermore, effects may not only differ for different programme types, but also when looking at different outcomes. Effects on the employment rate could differ from the effects on the rate of UB II receipt. Features decreasing the reservation wage should have a positive impact on the employment rate, but not necessarily on the probability of ending benefit receipt because jobs with a wage not sufficient to live on are more likely to be accepted with a lower reservation wage. Concerning future participation in active labour market programmes, we expect One-Euro-Jobs to increase the likelihood of participating in further programmes as they are the first step towards labour market integration and further steps have to be taken in many cases.

Effects of programme design on programme effectiveness

The legal framework of One-Euro-Jobs leaves wide scope to regional actors to respond to the regional labour market situation and to the specific situation of the unemployed, such as qualification or child-care needs. Next, we discuss the impact of different programme features on the reservation wage, the arrival rate of job offers and finally the probability of being regularly employed.

Planned duration of participation

Calmfors (1994) suggests that a longer planned duration of an active labour market programme has two effects going in opposite directions: On the one hand, a longer

programme duration will lead to a stronger lock-in effect. On the other hand, with a longer duration, more knowledge can be imparted and larger treatment effects can be achieved. The perception of the programme by the unemployed might also play a role. If participation is perceived as an acceptable alternative to unemployment (or regular employment), one would expect job search efforts to decrease during participation and thus lock-in effects would become stronger with a longer duration. Furthermore, One-Euro-Jobs could be used as a work test for those unemployed, who are suspected of not being available for work and who probably do not regard participation as an alternative to unemployment. It could also be the case that One-Euro-Jobs with a shorter planned length could be more often used as a work-test (because availability can be checked at lower costs). Then, the activation effect could be stronger for shorter programmes than for longer ones, because of the use as a work test and the particular target group and no lock-in effects occur for short programmes. However, we can only observe this effect, if the unemployed person actually starts the One-Euro-Job. If the unemployed person never starts the programme, which s/he is placed to (but, e.g. leaves UB II receipt), s/he does not belong to our treatment group (but possibly to the control group). For all programme types, this would lead to a downward bias of effects in the comparison to 'waiting' in the short term, fading away in the longer term. This should not play a major role in pairwise comparisons.

Overall, presuming that One-Euro-Jobs are not only seen as a "stick", but also as a "carrot", one would expect in the short run stronger lock-in effects for One-Euro-Jobs with a longer planned length of participation, but increased treatment effects in the longer run.

Working hours

On the one hand, with a higher level of working hours, the goal of getting used to a regular work schedule can be achieved more easily. On the other hand, a higher level of working hours reduces the time available for job search during participation, thus job search intensity and the arrival rate of job offers decrease at least in the short run and lock-in effects become stronger. Moreover, working hours increase the additional income, which might lead to an increase in the reservation wage, which also implies stronger lock-in effects.

In contrast, it could also be the case that One-Euro-Jobs with more working hours are more often used to test whether an unemployed individual is available for work, because e.g., it is easier to rule out illegal employment with a higher level of working hours. In this case, job search intensity and thus the likelihood of getting a regular job offer could be higher for One-Euro-Jobs with a higher level of working hours. Again, this is only observed, if the unemployed start the programme. If they find a job before starting the offered One-Euro-Job, they are not registered as participants in the data.

One-Euro-Jobs with more working hours could also be used for unemployed people, who have more severe difficulties finding a job, because case managers assume they need a more intensive treatment, e.g. to get used to regular work schedules, and lock-in effects do not play a major role. Then, lock-in effects should not increase with working hours compared to non-participation, but in the direct comparison of different levels of working hours when controlling for selection effects. If we assume that persons with more severe labour market difficulties can benefit more from participation than those with better labour market prospects, we would expect better treatment effects of One-Euro-Jobs with a higher level of working hours compared with non-participation in the medium term. This superiority of higher level of working hours should diminish in the direct comparison when selection effects are ruled out.

Consequently, several effects going in opposite directions could be at work: A more intensive treatment with a higher level of working hours may be best to achieve treatment effects as well as to check the availability of the unemployed, but it is also likely to lead to stronger lock-in effects. Overall, one would expect that effects either decrease or increase in the short run with a higher level of working hours depending on which of the effects described above dominates. Looking at the selectivity of different programme types can probably already give us more information on the way One-Euro-Jobs with a higher level of working hours are used, i.e. whether they are used as a work test or rather for hard to place individuals (see section 7.2). We expect larger treatment effects on employment outcomes for higher levels of working hours in the medium term because larger treatment effects can be achieved with a more intensive treatment. These larger treatment effects are supposed to emerge comparatively early, because the higher amount of treatment is achieved faster than in the case with a longer programme duration.

4 Previous findings

Effects of public employment programmes

To my knowledge, there are only two studies on the effectiveness of One-Euro-Jobs so far (Hohmeyer/Wolff 2007, Huber et al. 2009). One-Euro-Jobs have only small effects on the participants' probability to hold a regular job compared to other ALMPs, such as wage subsidies. In the short term, there are small lock-in effects and some groups of participants, such as women and unemployed individuals, who have not been employed for several years, benefit from participation 20 months after programme start. Some results indicate that persons who are particularly hard to place will benefit. Overall, effects are rather moderate with an increase in the employment probability of at most 2.7 percentage points for the main groups and 6.8 percentage points for one sub group (Hohmeyer/Wolff 2007).

One-Euro-Jobs are comparable to traditional job creation schemes ("Arbeitsbeschaffungsmaßnahmen") that are also additional jobs of public interest, but which have been limited in the past to unemployment insurance and unemployment assistance benefit recipients who on average have better labour market prospects than

our population of means-tested benefit recipients. Caliendo (2006) and Caliendo/Hujer/Thomsen (2006, 2008) analysed the effects of job creation schemes for participants, who started such a programme at the beginning of 2000. In qualitative terms, the results are similar to those of One-Euro-Jobs: In the short run, there are lock-in effects and positive effects emerge nearly three years after programme start for some groups of participants, such as the long-term unemployed, highly qualified men with above average labour market prospects, and West German women, in particular women who are older than 50 years or long-term unemployed. To some extent, the long-term unemployed were similar to our population of participants (except for highly qualified men). Comparing the evaluation results of One-Euro-Jobs and job creation schemes, it seems that job creation schemes are less effective: Lock-in effects are much stronger and positive effects need more time after programme start to emerge. There are several possible reasons for this: Job creation schemes on average have longer lengths of participation, higher levels of working hours, a group of participants easier to place (unemployment insurance and assistance benefit recipients), and the participants are paid a subsidised wage instead of benefits. This study helps us to gain insight into the relative importance of programme features.

Weak positive effects of public employment programmes in the longer term are likewise found by comparative international research for Germany as well as other countries. There are several studies that compare the effects of different active labour market policies on the labour market performance and benefit receipt of participants either in a direct or in a descriptive way (Bolvig/Jensen/Rosholm 2003, Calmfors/Forslund/Hemström 2002, Gerfin/Lechner 2002, Kluve 2006, Martin/Grubb 2001, Ochel 2004, Sianesi 2008, Stephan/Pahnke 2008). Regarding employment programmes, these studies conclude that working in a market environment matters for the effectiveness of the programme: Whereas subsidised and private sector employment does have positive impacts on the labour market performance of participants, public sector employment has only small or insignificant effects.⁶

Effects of different programme features

Whereas several studies compare the effectiveness of different active labour market policies, only a few studies concentrate on the role of different programme charac-

⁶ However, methods used may not be adequate for the estimation of treatment effects of private sector employment, because they cannot properly deal with substitution and wind-fall effects, which are likely to occur in the case of private sector employment, and thus treatment effects are not estimated precisely.

teristics of a single programme for its effectiveness.⁷ To our knowledge, there are no previous studies that investigated the effect of varying working hours on the effectiveness of a programme. Several recent studies investigated the role of programme duration, but mainly for training programmes and not for employment programmes. Exceptions are van Ours (2004) and Stephan/Pahnke (2008), who look at employment programmes. Van Ours (2004) compares two types of subsidized jobs in the Slovak Republic that differ only in programme length (6 to 24 months) focusing on potential lock-in effects. He finds that lock-in effects are higher for public employment programmes with a longer duration.

Stephan/Pahnke (2008) directly compare different German active labour market programmes lasting up to a year as well as different types of single programmes (provision of skills, job creation schemes) according to actual length of participation. Whereas shorter programmes tend to perform better with respect to days in regular employment, longer programmes are superior or equivalent regarding the share of people in regular employment 3.5 years after programme start. This hints at an increasing lock-in effect with programme length but also indicates that the advantages of shorter programmes decrease over time.

Biewen et al. (2007) and Kluve et al. (2007) look at different training programmes in Germany (further vocational training and short-term training). They find shorter training programmes to be more effective. A programme length longer than 100 days does not add any value (Kluve et al. 2007). However, when looking at short-term training, Biewen et al. (2007) do not distinguish between within company training and classroom training, but, as Wolff/Jozwiak (2007) and Stephan/Pahnke (2008) found out, within company training has considerably higher positive effects than class room training, probably due to the employer contact during the programme. Thus, the higher effectiveness of short term training Biewen and others (2007) have found could be driven to a large extent by within company training.

Flores-Lagunes/Gonzalez/Neumann (2007) find decreasing revenues of programme length for a US training programme for young people, but, instead of planned length, they also look at actual length of participation, which is not exogenous, but affected by programme success.

⁷ Caliendo and others (Caliendo 2006, Caliendo/Hujer/Thomsen (2006)) analyse the effectiveness of different types of job creation schemes according to the sector in which the programme takes place compared to non-participation ('waiting'). They distinguish between five different industries, two types of support (regular vs. increased) and two implementing institutions (public vs. private) for the same sample of unemployed as mentioned above. Again, they find positive effects only for some groups i.e. men in West Germany in "Office and Service" and women in East Germany in "Community Services". Of course it would also be interesting to analyse sectoral effect heterogeneity for One-Euro-Jobs, but unfortunately we do not have sufficient data on the sectors of the programme for 2005 (Federal Employment Agency – Statistics 2006). Information about the sector is available for One-Euro-Jobs starting in December 2006 or later, so the analyses will be feasible for another sample at a later point in time.

Overall, shorter programmes tend to perform better, at least in the short run, whereas there is some evidence that longer programmes catch up later on. The drawbacks of these studies are that some use actual length of programme participation instead of planned duration and compare programmes that differ in more aspects than just length. As actual length of participation is endogenous, the effect of shorter participation could be overestimated, if participants drop out of a programme because they found a regular job.⁸ Furthermore, all of these studies, except for Flores-Lagunes/Gonzalez/Neumann (2007), investigate programmes for unemployment insurance and assistance benefit recipients, who have better labour market prospects on average than UB II recipients. Thus, the length of participation might play a different role for them.

5 Evaluation approach and method

Evaluation approach

We are interested in the effect of participation in a One-Euro-Job on the labour market performance of participants. First, we ask whether different types of One-Euro-Jobs are effective compared to non-participation. Non-participation here is defined in the sense of “waiting”, which means not starting a One-Euro-Job in a given period of time. This implies that starting another programme or starting a One-Euro-Job later on is not excluded from the “non-participant” state.⁹ Second, we investigate the effects of participation in one type of One-Euro-Job compared to participating in a One-Euro-Job of another type. Participation is defined as “starting” a One-Euro-Job in a certain period of time and not as completing, because completing the programme is endogenous.

Typically, non-participation is also defined as a treatment. Thus, with $R - 1$ different types of One-Euro-Jobs (according to one dimension), we have R mutually exclusive and exhaustive treatments. When evaluating the effects of One-Euro-Jobs, we face the *fundamental evaluation problem*, because we cannot observe all R potential outcomes - after participation in a One-Euro-Job and non-participation - for a single individual at the same time but only one. To solve this problem, we compare the labour market outcomes of participants in treatment r to similar persons receiving a different treatment s . But as we have to deal with a *non-experimental design* and assignment is not random, simply comparing participants receiving treatment r with participants receiving treatment s would lead to a *selection bias*. Thus, we apply a statistical matching approach to find a control group within the treatment group s , which resembles participants in treatment r in all relevant characteristics that influence both treatment status and labour market outcomes. The crucial assumptions

⁸ If participants dropping out of programmes retreat from the labour market, effects of short participations could also be underestimated in these studies.

⁹ For the discussion of different definitions of non-treatment see Sianesi (2008) or Stephan (2008).

of this approach are that we observe all such relevant aspects and that there is no selection on unobservables. Otherwise causal effects cannot be identified.

Method

A standard framework to solve the *fundamental evaluation problem* in a non-experimental design is the Roy (1951) - Rubin (1974) - model of potential outcomes.¹⁰ This approach for binary treatments was extended by Imbens (2000) and Lechner (2001) for analysing multiple treatments. The following description is based on Frölich (2004).

With $R - 1$ programme types and non-participation, we have R potential outcomes for an individual i :

$$Y_i^0, Y_i^1, \dots, Y_i^{R-1}$$

As treatments are mutually exclusive, only one of the potential outcomes of an individual can be observed. When comparing the effects of R different treatments, we basically face a multinomial problem. Lechner (2002) compared results based on binary (pairwise) and multinomial matching and achieved similar results with both approaches. Thus, we will stick to pairwise comparisons of the different treatments comparing only two treatments r and s at a time.

Because of the fundamental evaluation problem, the causal effect of receiving treatment r and not treatment s

$$Y_i^r - Y_i^s$$

is not ascertained. The parameter of interest in our case is the Average Treatment Effect on the Treated (ATT)

$$E(Y_i^r - Y_i^s \mid D = r)$$

which is the expected difference in the outcomes for those participating in treatment r . D_i indicates the treatment status of individual i .¹¹

To find an adequate control group of participants in treatment s s who resemble participants in r in the relevant aspects, we employ a statistical matching approach. If we control for all factors X influencing the participation probability and the outcome, the ATT can be estimated by the difference of labour market outcomes of participants in r and of the control group participating in s :

$$E(Y^r - Y^s \mid D = r) = E(Y^r \mid D = r) - E(Y^s \mid D = s, X)$$

¹⁰ A comprehensive description of the method can be found in Caliendo/Kopeinig (2008) and Frölich (2004).

¹¹ The decision on which effect to estimate depends on the research question. Heckman/LaLonde/Smith (1999) discuss further parameters.

The crucial assumption we have to make so that the ATT can be identified in this way is that we control for all confounding variables influencing both the treatment selection and the potential outcomes. Phrased differently, we assume that, given the characteristics X , the programme chosen by a particular individual does not reveal any information on his/her potential outcomes:

$$Y^r \perp\!\!\!\perp D \mid X \quad \forall r$$

which is also known as “selection on observables“, “ignorable treatment assignment“ or “conditional independence assumption“.

Exact matching on all covariates is not feasible due to a dimensionality problem (‘curse of dimensionality’): For a large number of covariates – as required by the matching approach - it would be very difficult to find statistical twins with exactly the same characteristics for all covariates. To solve this, balancing scores are used as a basis for matching. Rosenbaum and Rubin (1983) show that, if potential outcomes are independent of treatment conditional on covariates X , they are also independent of treatment conditional on a balancing score $b(X)$. We apply the Propensity Score as a balancing score, which means that we match on the probability to participate in the treatment r and not s , given X estimated by a probit model for a sample of participants in treatments r and s .

A further requirement is the existence of a common support (weak version) according to Lechner 2000) $P(D = r \mid X) < 1$ which means that persons with the same values of X must have a probability smaller than 1 of participating in r as well as in s . Furthermore, the distributions of the probabilities of participating in r for participants in r and for participants in s $P(D=r|X,D=r)$ and $P(D=r|X,D=s)$ have to overlap. The ATT is only identified, if for any given value of $P(D=r|X,D=r)$ there are individuals receiving treatment s with the same value of the propensity score $P(D=r|X,D=s)$ (Frölich 2004).

The consideration of the effect for single individuals requires that both the probability of participating and the effect on the labour market performance of an individual is not influenced by the participation decision of other individuals (stable unit treatment value assumption, SUTVA). The SUTVA ensures that treatment effects can be estimated regardless of the number and composition of participants and implies that a participation decision of a single individual is not affected by the participation decision of other individuals (no “peer effects” according to Sianesi 2004).

According to Frölich (2004), the SUTVA can be assumed to hold, if the programme is of small size, if market effects are unlikely or if the counterfactual world is similar to the one evaluated. There is certainly reason to question this assumption in our context, since a large number of individuals is treated. On the other hand, this is not too critical when comparing different types of One-Euro-Jobs, because treatment and counterfactual world are similar.

As we do not have random assignment, the groups of participants in r and s differ and probably also the effects of treatment r and s . If the effects of participants in the treatments r and s differ, the treatment effects on the treated are not symmetric (Lechner 2000):

$$E(Y^r | D = r) - E(Y^s | D = r) \neq -[E(Y^s | D = s) - E(Y^r | D = s)]$$

Therefore, we compare treatments r and s in both directions.

6 Data and implementation

We use particularly rich administrative data from the German Federal Employment Agency containing information on (1) individual characteristics, (2) programme characteristics and (3) labour market outcomes of individuals.

We use the total inflow into One-Euro-Jobs from February to April 2005 of individuals, who were both registered as unemployed and receiving UB II on 31 January 2005 as the treatment group. We only consider unemployed aged 15 to 62 years, since older UB II recipients rarely enter One-Euro-Jobs, and we want to avoid keeping persons in the sample who enter their old-age-pension within the observations window. The potential controls stem from a 20 percent random sample of UB II recipients, who were unemployed on 31st January 2005 and who did not start a One-Euro-Job from February to April 2005. As we use only a sample of the stock of unemployed for the control group and the total inflow into One-Euro-Jobs for the treatment group, we use inverse sampling probabilities as weights when estimating the propensity score for participating compared to waiting.

For the control group members, naturally no programme start is available over this period. Therefore, we computed a random programme start for the controls such that it follows the distribution of programme starts of the treatment group over these months and excluded those controls, who exited from unemployment before the calculated random programme start (Lechner 1999). The sample sizes for men and women in East and West Germany are large, encompassing 50,000 and more potential controls and at least 9,000 treated per group (Table 2).

The information on the characteristics of participants and non-participants before (potential) programme start is used to estimate the propensity score. Rich information on the characteristics of individuals helps diminish the selectivity of programme assignment, to justify the conditional independence assumption and to make it likely that causal effects can be identified (Heckman et al. 1998). We observe information on sociodemographic characteristics, such as age, family status, education, migration background and health status and on the labour market history like periods of (non-)employment and benefit receipt, previous participations in active labour market programmes and information on the last job. In contrast to most evaluation studies, we additionally have the information just described not only for the persons in the treatment and control group, but also for members of their needy household. This information is available since the benefit reform of the year 2005, when a new

way of registering members of means-tested households was introduced. Hence, our set of covariates that potentially determines the propensity score is richer than that of many other comparable studies, which is particularly important to justify the Conditional Independence Assumption. The specific data sources for information on individual characteristics are displayed in Table 3 in the Appendix. We included regional information on the labour market, such as dummy variables reflecting a classification of the labour market situation developed by Rüb and Werner (2007) and further information at the district level: Unemployment rate, the share of long-term unemployment in the unemployment pool, the ratio between the vacancy and the unemployment stock in January 2005 and their percentage change against the previous year. Table 4 displays descriptive statistics for the variables used for the analyses. The exact specification of covariate sets for the probit estimations differs over the subgroups. First of all, some variables (e.g., dummy variables for age groups) have to be defined in a broader way for smaller sample sizes. Second, a number of covariates are not important for the selection and have been deleted. In all cases, we estimated a probit model with a full variable set and tested whether groups of variables, e.g., binary variables for the last monthly earnings or the last economic sector were jointly insignificant.¹² Given this large variety of covariates, which is available for the estimation of the propensity score, we are confident that our assumption of unconfoundedness holds.

To analyse programme heterogeneity, we estimate the treatment effects separately for different programme types. We use information on programme characteristics to define the programme types according to planned duration and weekly working hours. The information stems from the planning data registered in the local labour market agencies. Actual programme design may deviate from this planned information in some cases (Federal Employment Agency, Statistics 2007). Deviations may stem from two sources. First, the person in charge of registering the information approximates the actual value. Second, deviations from the planned characteristics arise later, for example, during participation in the establishment and are not registered subsequently. According to information from the Statistics Department of the Federal Employment Agency, the approximation is not a problem, but deviations only occur, if values change because planned data is not updated.¹³

We estimate the ATT for three groups by planned duration (>0 to ≤ 4 months, > 4 to ≤ 8 months, >8 to 12 months) and by weekly working hours (1 to 20, 21 to 29, 30 to 40). The numbers of observations for these subgroups are still large, ranging from more than 800 to 15,000 (Table 2). Most One-Euro-Jobs have a planned duration of between four and eight months and a working time of 30 hours per week.

¹² To save space, the probit estimations are not displayed here, but are available on request.

¹³ In the case of the planned duration, this is even good news, because including the actual duration of participation would lead to a bias, because actual duration is endogenous.

We investigate the effect of participation on the probability of being regularly employed (i.e. unsubsidised contributory employment) at the beginning of each month after programme start and on the cumulated months in regular employment in months 1 to 12, 1 to 28 and 13 to 28 after programme start. Whereas the main outcome discussed is the probability to hold a regular job, we will also look at other outcomes for the four main groups, such as no UB II receipt, participation in One-Euro-Jobs and other active labour market programmes and contributory employment, including subsidized employment.

We applied different matching algorithms. We display here the results of Radius Caliper Matching using all comparison members within the caliper set, which are on support. The benefit of this approach is that only as many comparison units as are available within the caliper are used and the usage of extra units when good matches are available is allowed. The difficult part of this approach is to find a reasonable caliper. We set the caliper leaving out the worst one percent of matches. We calculated the calipers by estimating the 99th percentile of the differences between the propensity score of treatments and controls (in $x'\beta$) resulting from nearest neighbour five-to-one matching with replacement. The implemented calipers for matching can be found in Table 5.

7 Results

7.1 Programme selectivity

Because case managers may place different types of unemployed in different programme types and this may influence the effectiveness of programme types, it is worth looking not only at the participant structure of One-Euro-Jobs as a whole, but also at differences between various types of One-Euro-Jobs. For example, case managers may be more inclined to arrange a longer participation with hard to place benefit recipients than with those with rather good prospects to find a job. Because we are able to distinguish between effects caused by differences in programme design and effects caused by differences in the structure of participants, we are interested in whether different patterns of participants exist for the different types of One-Euro-Jobs. Characteristics of potential controls, treated in general and treated in different types of One-Euro-Jobs are displayed in Table 4 and Table 6. The results of previous studies on the participant structure of One-Euro-Jobs can be confirmed: Young unemployed aged younger than 25 years are overrepresented in One-Euro-Jobs. Except for this, One-Euro-Jobs do not particularly focus on intended target groups. Neither foreigners, nor unemployed persons without vocational degrees nor those who have not been employed for several years are particularly targeted.¹⁴

Looking at the different types of One-Euro-Jobs, we find that young unemployed people are overrepresented in One-Euro-Jobs with a rather short planned duration

¹⁴ For a more detailed analysis of the selectivity of One-Euro-Jobs in (spring) 2005, see Hohmeyer/Kopf (2009) and Wolff/Hohmeyer (2006).

of up to four months, whereas unemployed persons older than 50 years tend to start a One-Euro-Job with a comparatively long duration (except for women in West Germany) (Table 4). The comparatively short lengths of participation for young unemployed could be caused, e.g., by the more frequent use of the programme as a work test for this age group, better employment prospects (avoidance of lock-in effects) or by the special requirement for young unemployed people not to be registered continuously as unemployed for more than three months (Federal Employment Agency 2006b). Participation in a One-Euro-Job with a short duration (and at least 15 hours per week) is sufficient to interrupt registered unemployment of young unemployed individuals. Except for these age effects, differences in the participant structure concerning the regarded characteristics are rather small. For East Germans and West German women, there is also some evidence that those without any qualification are rather more likely to start a One-Euro-Job with a duration of up to 4 months and more than 8 up to 12 months.

Turning to working hours, it becomes obvious that the share of young unemployed people in East Germany is higher among One-Euro-Jobs with less than 30 hours per week than for those working 30 hours or more. The share of the unemployed without qualifying degree is higher among those working 30 hours or more than among those working less.

The results of the probit estimations (not displayed), which we used in order to balance treatment and control groups for the pairwise comparisons of programme types, confirm the strong effect of age: Higher age is associated with a longer planned programme participation. Effects are consistent for all four groups of participants, but weaker and partly insignificant for women in West Germany. The probability of starting a One-Euro-Job with a working time of 30 hours or more is higher for unemployed individuals aged 25 years or older.

The issue of taking care of own children is a significant factor influencing working hours, but only for women. Women in East Germany with children have a lower probability of working 30 hours or more than women without children. For women in West Germany, childcare for their own children does not have a significant effect, but children in the household (who are not necessarily their own children) are associated with a higher probability of working 20 hours or less compared to working 30 hours or more. Furthermore, East German benefit recipients working in a 'mini-job' (minor employment) on 31 January 2005 are less likely to start a One-Euro-Job with more than 20 hours per week.

Furthermore, regional aspects seem to have a strong impact in the probit estimations. The importance of regional characteristics may not only mean that the regional labour market is taken into account, but it may also indicate that the programme design to some extent is determined at the regional level and that case managers are limited to the available One-Euro-Jobs. In East Germany, a higher vacancy-unemployment rate is associated with a shorter duration. One-Euro-Jobs

have a longer planned duration in less favourable labour market conditions measured in terms of a lower vacancy-unemployment rate. This suggests that the One-Euro-Jobs are a surrogate for regular employment in East Germany, as was found for traditional job creation schemes in the 1990s.¹⁵

Overall, selectivity among the different programme types does not seem to be particularly strong except for age effects and to some extent for regional effects. This could indicate that case managers did not respond to (observable) personal characteristics at the beginning of 2005. This is not particularly surprising given the large number of participants in the introduction period of Social Code II.

Further insight into programme selectivity can be gained by looking at the labour market outcomes of the treated, potential controls and matched controls. Table 7 displays the share of those regularly employed 28 months after programme start for the three groups. If the share of those regularly employed 28 months after programme start among the matched controls is higher than for all controls, we can assume that participants are a positive selection of the unemployment stock.

In general, participants are a positive selection of the stock of the unemployed as the share of matched controls that holds a regular job 28 months after programme start is higher than the share among all control individuals (except for men in East Germany). The unemployed participating in a short programme in East Germany tend to be better risks than those in longer programmes. Those with worse labour market prospects are on average placed to One-Euro-Jobs with a longer planned duration. There are hardly any differences among matched controls according to programme length in West Germany. The unemployed participating in a One-Euro-Job with 30 hours or more per week are slightly worse risks than those in the other two groups. We do not find evidence that One-Euro-Jobs with 30 hours per week and more are used as work tests, but they are rather used for those with more severe difficulties in finding a job.

7.2 Matching quality

7.2.1 Common support

For Propensity Score Matching, we have to assume that a common support exists. The existence of a common support means that the participation probabilities are lower than one and that the distributions of the propensity score for the treatment and the control groups overlap. Figure 1 shows the distribution of the propensity score for men and women in East and West Germany. It becomes obvious that the distributions for the control and the treatment group are quite similar. Furthermore, we looked at the distribution of the propensity scores for the various subgroups and their pairwise comparisons to check the overlap of treatment and control groups.

¹⁵ On the other hand, a high vacancy-unemployment-ratio could also be an indicator for labour market mismatch.

Given the large number of results, the distributions of the propensity scores are not displayed here, but they are available on request. The distributions of the propensity score of treatment and control groups are very similar for the ‘waiting’ groups and the subgroups of participants in various programme types. For the pairwise comparisons, differences in the shape of the distribution of the propensity score can be observed in some cases, but nevertheless there is sufficient mass among non-participants for regions of the propensity score with mass among participants.

7.2.2 Balancing of the covariates

The *mean standardised absolute bias (MSB)* measures the distance in the marginal distribution of the covariates and is displayed in Table 8.¹⁶ Let us first have a look at the bias for the estimation of effects compared to waiting. Before matching, the bias ranges from about 7 to 17 percent. After matching, the mean bias decreases considerably for the four main groups to values below one and for the subgroups to values between 0.3 and 2 percent. Hence, the balancing of the covariates appears to work well.

Concerning the pairwise estimation of effects, we observe that in many cases the bias before matching ranging from 5.5 to 11% is smaller than for the estimations compared to waiting. This is the case because we only look at individuals participating in different types of One-Euro-Jobs that seem to be a less selective process than participating compared to waiting. One exception for which balancing is difficult concerns variables containing regional information on the district level. It became obvious in the analysis that the level of working hours is to some extent determined on a regional level and that not all levels of working hours are sufficiently prevalent in all districts. Thus, the inclusion of all regional information as described above on a district level in the pairwise estimation led to larger mean standardised absolute biases, which in two cases exceeded the value of five: Men and women in East Germany working up to 20 hours compared to 21 to 29 hours. Therefore, we had to try different sets of covariates and finally reduced the large number of regional variables, while still assuring that the influence of the regional labour market on the potential outcomes is covered. For the pairwise estimations we rely, therefore, on the classification of regional labour markets by Rüb and Werner (2007) which exploit several issues of information such as the GDP per capita, the unemployment rate and the share of UB II recipients among all benefit recipients. Given that Rüb and Werner (2007) aggregate districts with similar labour market conditions to twelve district types, balancing can be achieved more easily without losing too much information on the regional labour market. The bias after matching using the reduced set of regional variables is less than 2.5.

¹⁶ The MSB is defined as $|100 \cdot (\bar{X}_{treat} - \bar{X}_{controls}) / \sqrt{0.5 \cdot [V_{treat}(X) + V_{controls}(X)]}|$.

As another indicator for match quality, the *Pseudo-R²* of the probit estimations *before and after matching* is displayed in Table 9. As expected, *Pseudo-R²* after matching is smaller than before because covariates no longer explain the participation probability. *Pseudo-R²* after matching does not exceed 0.01 in any of the estimations, which can be regarded as sufficiently small.

We also calculated *t-tests on means of single covariates*: The differences between treatment and control group in the covariates are not significant after matching in the majority of cases. The results are not displayed here Due to space constraints but they are available on request.

7.2.3 Robustness and sensitivity of results

We used different matching methods to check the robustness of results. Because matching without replacement is not appropriate for pairwise matching when control groups tend to be small, we applied matching with replacement. We estimated the effects using nearest neighbour matching with five neighbours and replacement and radius caliper matching with two different calipers leaving out the worst 1% and 10% of the matches. Nearest neighbour matching performed slightly worse in terms of matching quality (MSB and t-tests on single covariates) than radius caliper matching, whereas radius caliper matching using the two different calipers as mentioned above achieved a sufficient and similar matching quality. The results displayed in this paper are based on radius caliper matching leaving out the worst 1 % of the matches. However, results are robust across the three different matching algorithms.

The estimation of treatment effects with matching estimators is based on the assumption of unconfoundedness. However, if there are unobserved variables affecting assignment into treatment and the outcome variables simultaneously, a ‘hidden bias’ might arise. Rosenbaum bounds are one option to determine how strongly an unmeasured variable must influence the selection process in order to undermine the implications of matching analysis (Caliendo/Kopeinig 2008, Rosenbaum 2002). Unfortunately, Rosenbaum bounds are only implemented for nearest neighbour matching with one nearest neighbour and without replacement (Becker/Caliendo 2007). Because nearest neighbour matching without replacement is not appropriate in the case of pairwise matching, when control groups are small compared to treatment groups, Rosenbaum bounds are not meaningful here for pairwise matching. However, I computed the Mantel-Haentzel statistic using the Stata Programme “mhbounds” by Becker/Caliendo (2007) for the four broad groups of men and women in East and West Germany. I calculated the test statistic Q_{MH} for the outcome regular employment in the 28th month after programme start.

The treatment effects that we obtained are small und thus it is not surprising that they are rather sensitive to a potential bias: We find for men in East Germany that participation has an insignificant effect on the employment rate after 28 months after programme start. Unobserved factors that lead to odds ratios of 1.05 or 1.10 are

sufficient to produce negative or positive significant effects. Effects of East German women are sensitive to a factor of 1.05. The positive treatment effects of West German women are less sensitive. Unobservable influences that change the odds ratio up to a factor of 1.25 would still be in line with a significant effect. However, the results of the sensitivity analysis do not mean that a bias actually exists, but that matching results are sensitive to possible deviations from the assumption of unconfoundedness and thus one has to be careful in interpreting the results.

7.3 Overall effects of participation

Effects on regular employment prospects

Do One-Euro-Jobs increase the labour market performance of participants? Because One-Euro-Jobs are supposed to be used as a last resort for hard to place individuals and have to be additional jobs of public interest, large effects cannot be expected in the short term. But can One-Euro-Jobs be seen as a first step towards the labour market? To answer this question, it is necessary to observe the labour market performance of participants (and of the control group) for a sufficient period of time after programme participation. We now observe the employment status for 28 months after programme start, which is significantly longer than Hohmeyer/Wolff (2007) and Huber et al. (2009), who observe the employment status for the first 20 and 12 months after programme start, respectively.

Table 10, Table 11 and Figure 2 show the Average Treatment effects on the Treated (ATTs) of participating in a One-Euro-Job on the probability of having a regular job and on cumulated months in a regular job for men and women in East and West Germany. In the short run, we observe lock-in effects: Participants have a lower probability of being regularly employed of up to four percentage points than non-participants. Most programme participations last up to six months (Hohmeyer/Schöll/Wolff 2006). Thus, lock-in effects are strongest at around four to six months after programme start and begin to decrease afterwards (Figure 2). One year after programme start, participants still have a lower probability of being employed than comparable non-participants (except for West German women, for whom the effect is not significant).

We observe small positive effects for women in West Germany starting 16 months after programme start. The effects increase and female participants in West Germany have a three percentage point higher probability of being employed than comparable non-participants at the end of the observation window. The effects for men in West Germany and women in East Germany turn positive around two years after programme start. We also observe positive effects for women in East Germany 28 months after programme start (0.6 percentage points) and for men in West Germany (1.3 percentage points) whereas effects for men in East Germany are not significant. The results are in line with the findings of Bergemann/van den Berg (2007), who find in their survey of evaluation studies on various active labour market programmes that women have larger treatment effects than men, particularly when female labour market participation is low. Overall, One-Euro-Jobs contribute to leading unem-

ployed (back) to regular employment at around two years after programme start (except for men in East Germany). Nevertheless, effects are small with up to three percentage points, particularly compared to subsidized private sector employment (Jaenichen/Stephan 2009, Wolff/Jozwiak 2007).

Overall, East German men and women in our sample spend on average two to three months in regular employment within the 28 months after programme start, whereas men and women in West Germany are on average regularly employed for three to four months in that period (not displayed). Lock-in effects can also be observed when looking at the cumulated months in regular employment after programme start (Table 11). Participants spend roughly 0.2 months less in regular employment than comparable non-participants in the first year after programme start, which is not surprising since One-Euro-Job participations last about six months. Participants start to catch up in the second year after programme start: The effect becomes insignificant for women in East Germany and West German men and even positive for West German women. Female participants in West Germany spend roughly 0.3 months more in regular employment during months 13 to 28 after programme start than comparable non-participants. For East German men, the effects stay significantly negative for the months 13 to 28.

Effects on other outcomes

Given that One-Euro-Jobs have several goals and One-Euro-Jobs are supposed to be only the first step in the integration process, other indicators for programme success are interesting as well. Looking at the probability of avoiding UB II receipt, we observe that effects are negative 33 months after programme start (Figure 3). One-Euro-Jobs do not contribute to avoiding benefit receipt, but increase the probability of receiving means-tested benefits within nearly three years after programme start for all four groups of participants. One reason for this result could be that One-Euro-Job participants reduce their reservation wages in contrast to comparable persons, and consequently more frequently find jobs that pay low wages or that are only part-time in case of women. Thus, even with a (slight) positive effect on their employment rate after participation ended, One-Euro-Job participation still raises the rate of UB II receipt of participants.

We find positive effects for participation in One-Euro-Jobs and other active labour market programmes: One-Euro-Jobs increase the probability of participating in an active labour market programme in the future (Figures 4 and 5).¹⁷ This could hint at the existence of “programme careers” or at the use of One-Euro-Jobs as a first step, which has to be followed by further steps. This is also supported when looking at the effects on contributory employment including subsidized employment (Figure 6). We observe positive effects slightly larger than those for regular employment, which

¹⁷ We investigate the outcome at the first of each month, but many treatments start later in the month. Thus, ATT on ALMP participation in the first month is lower than expected and higher in the second month.

indicates that participants proceed to subsidised employment to some extent. Hence, it might be interesting to analyse the impact of programme sequences including One-Euro-Jobs for future research.

7.4 Effects by planned duration

The ATTs on the cumulated months and the share in regular unsubsidized employment for three different categories of One-Euro-Jobs according to planned length of programme participation (≤ 4 months, > 4 to ≤ 8 months, >8 to 12 months) are displayed in Table 10, Table 11 and in Figure 7.

Regarding the *short-term employment effects* of One-Euro-Jobs within the first year after programme start, we find that longer participations with a planned duration of more than four months lead to stronger lock-in effects than shorter participations (Figure 7). The differences in effects for the different programme types compared to 'waiting' are larger in West Germany than in East Germany. This is in line with the generally larger lock-in effects in West Germany caused by better labour market conditions (Figure 2). Whereas no lock-in effects exist for participations up to four months one year after programme start, negative effects can still be observed for the longer participations for the most part (Tables 10 and 11). This short term advantage of short programmes is affirmed by the pairwise comparisons, although not all effects are significant: E.g., East German men in short One-Euro-Jobs are better off in terms of employment chances than they would have been in a longer programme (1.7 to 2.5 percentage points) and those who started a One-Euro-Job with a longer expected duration would have been better off with a One-Euro-Job with a duration of up to four months (Table 10). Whereas One-Euro-Jobs with a short duration are superior to longer ones, no significant differences can be found for One-Euro-Jobs with medium and long duration for men in East Germany. This advantage of short programmes also becomes obvious when looking at the cumulated months in regular employment: Participation in a short One-Euro-Job leads to 0.2 to 0.4 months more in regular employment during one year after programme start compared to participation in a longer programme (Table 11).

The medium-term effects of different lengths of One-Euro-Jobs are best discussed separately by group against the background of the general treatment effects for the particular group. We do not observe positive treatment effects for *men in East Germany* in general, but negative effects in the short run and zero effects in the medium term (see section 7.3). Looking now at the different lengths of participation, we find zero effects for those participating in a One-Euro-Job with a duration up to eight months and negative effects for participations longer than eight up to twelve months on the chance of being in regular employment 28 months after programme start. The better performance of short programmes is affirmed in the pairwise comparisons, although not all the effects are significant, as well as when looking at the cumulated months in regular employment. Thus, participation does not help men in East Germany with respect to employment chances and longer treatments tend to perform worse than short ones.

We observe small employment effects two years after programme start for *women in East Germany* in general which is also true for different categories of One-Euro-Jobs according to programme length. Effects compared with waiting are small and only significant for those participating in a One-Euro-Job with a duration of more than four up to eight months, which is the largest group. There are no significant effects in the pairwise comparisons.

We observe small positive effects on the probability to hold a regular job two years after programme start for *men and women in West Germany* in general. Looking now at different lengths of participation, we find zero effects for participations with a duration of up to four months and positive effects for longer participations. For men, employment effects are slightly larger for participations with more than eight up to twelve months than for One-Euro-Jobs with a length of more than four to eight months. However, effects point in this direction in pairwise comparisons but effects are not significant. It cannot be ascertained here whether differences are due to selection effects or whether differences are too small to be significant.

We do not find strong selection effects for West German women (see Table 7), thus I would assume that programme length of longer programmes is to some extent causal for higher treatment effects. However, we observe some selectivity for men in West Germany going in the direction that better risks are more likely to participate in comparatively short programmes (Table 7). Thus, selection might play a role going in the direction that unemployed with worse labour market prospects are more likely to participate in a comparatively long programme and they are more likely to benefit from a programme like One-Euro-Jobs imparting basic skills (Hohmeyer/Wolff 2007).

Although we cannot ascertain that longer programmes outrun short ones over time, we find evidence that the disadvantage of longer participations decreases over time: Regarding the cumulated months in regular employment in the first 28 months after programme start, shorter programmes perform better. However, in the second year after programme start, we find a positive effect on the cumulated months in regular employment in West Germany for male participants in a One-Euro-Job with a length of more than eight months, whereas no effects occur for shorter programmes. For West German women, all lengths lead to cumulated employment effects. A longer observation period would be desirable to be sure about effects. Anyway, the results are in line with Stephan/Pahnke (2008), who studied a different employment programme to find a better performance of shorter programmes with respect to cumulated days in regular employment, but that longer programmes are equal or superior when looking at the share in regular employment 3.5 years after programme start.

7.5 Effects by working hours

Table 10, Table 11 and Figure 8 show the ATTs on the probability to hold a regular job and on the cumulated months in regular employment for the three categories of working hours (1 to 20, 21 to 29 and 30 to 40 hours). In the short term, we observe a

correlation between working hours and treatment effects only for women in East Germany: One-Euro-Jobs with a medium level of working hours (21 to 29) perform best in comparison to waiting as well as in the pairwise comparison one year after programme start in terms of employment chances (Table 10). A lower level of up to 20 working hours per week may not be enough to achieve treatment effects and labour market attachment, whereas working 30 hours and more lead to stronger lock-in effects. No clear pattern can be observed in the short term concerning the relationship between working hours and effectiveness for the other three groups. There are no significant differences between the different types of One-Euro-Jobs concerning the effectiveness during the first year after programme start (Figure 8). We find no evidence that working hours increase lock-in effects. But the lack of correlation between working hours and lock-in effects for these groups cannot lead us to conclude that working hours do not matter for their job search intensity, because this is only one possible explanation among others. One possibility is that the level of working hours does not indicate the level of time left for job search, because a lower level of working hours comes along with a higher amount of further liabilities of the unemployed (such as child care). Furthermore, there may be several mechanisms at work related to a higher level of working hours like lock-in effects interacting with treatment effects in the sense that a more intensive treatment rapidly leads to treatment effects, which just neutralise lock-in effects. Moreover, we cannot say whether One-Euro-Jobs with a higher level of working hours are more often used as a work test and to what extent threat effects play a role.

In the medium term, there are still only small differences between the programme types, and a clear overall relationship between working hours and treatment effects cannot be observed for most of the groups. Again, we look at the different groups of participants and discuss results bearing in mind overall effects for that group. Differences mainly occur for East German women: One-Euro-Jobs increase the employment prospects two years after programme start for *East German women* working 21 hours or more. Just like one year after programme start, effects are strongest for those working between 21 and 29 hours at 3.2 percentage points. This advantage of One-Euro-Jobs with a medium level of working hours is also obvious in pairwise comparisons. East German women in One-Euro-Jobs of 21 to 29 hours would have been worse off working less or more hours and those working up to 20 hours or 30 hours and more would have benefited from a medium level of working hours in terms of employment prospects. Thus, selection effects cannot (entirely) explain the advantage of One-Euro-Jobs with 21 to 29 hours, but also programme type effects are at work. One possible explanation for the better performance of One-Euro-Jobs with a medium level of working hours is that working only 20 hours or less is not enough for this group to achieve a sufficient treatment effect and labour force attachment, whereas working more than 29 hours does not leave enough time for participants to search for a (good and stable) job. A further possibility is that One-Euro-Jobs with a working time of 21 to 29 hours are better jobs than those with 30 hours or more. One-Euro-Jobs often have a working time of exactly 30 hours per week,

thus a weekly working time of 30 hours could indicate a “standard” One-Euro-Job with a large number of participants such as in a buyback centre whereas a lower level of working hours could hint at an individual arrangement and a more suitable One-Euro-Job.

For the other three groups, differences between different types of One-Euro-Jobs according to working hours are only small. One-Euro-Jobs with a working time of less than 30 hours per week lead to zero employment effects for *men in East Germany*, whereas One-Euro-Jobs with 30 hours or more have a small negative effect of 0.8 percentage points (regarding both employment outcomes). In a pairwise comparison, only participating in a One-Euro-Job with 30 hours or more compared to 20 hours or less has a significantly negative effect. East German men in a One-Euro-Job of 30 hours or more would have benefited from participating in a One-Euro-Job of up to 20 hours. Thus, we again find hints that One-Euro-Jobs do not increase employment chances of East German men and more treatment leads to worse employment effects for them.

For *men in West Germany*, we observe positive effects on the employment chances for those participating in One-Euro-Jobs with more than 20 hours per week (2.4 and 1.2 percentage points) and insignificant effects for those working up to 20 hours per week. However, there are no significant effects in pairwise comparisons. For *women in West Germany*, we observe positive effects on the employment chances for all types of One-Euro-Jobs, which are largest for those participating in a One-Euro-Job of 21 to 29 hours at 4.1 percentage points compared to 3.1 and 2.4 percentage points for the other categories. However, the larger effects of 21 to 29 hours One-Euro-Jobs are not confirmed in pairwise comparisons, unlike for women in East Germany. We cannot decide here whether this definitely points to selectivity effects, because differences between programme types are small.

Overall, we do not find evidence of increasing lock-in effects for more intensive treatments, but there are some hints for some groups that working 20 hours or less is not enough to achieve significant treatment effects. Here, an even longer observation period may be helpful for analysing the effects.

8 Summary and conclusion

In 2005, major reforms of German labour market institutions came into force, which led to a stronger emphasis on the activation of unemployed people. As one means of activation, a workfare programme called ‘One-Euro-Jobs’ was implemented at a large scale. Legislation set only key features of One-Euro-Jobs: One-Euro-Jobs have to be of public interest and additional to employment in regular labour markets in order to prevent crowding out regular jobs. Participation in a One-Euro-Job is only temporary and should only be applied, if no other opportunity like regular employment, further training, vocational training, or other programmes, is available or suitable. In terms of further aspects, such as exact duration and weekly working hours, regional actors have considerable leeway. This paper investigates how One-Euro-

Jobs influence the labour market outcomes of participants in the medium term and how flexible programme aspects are associated with effect heterogeneity. One-Euro-Jobs of different planned duration and weekly working hours are compared applying Propensity Score Matching. First, effects of participation are estimated for the different types of One-Euro-Jobs compared to non-participation ('waiting') to learn how the different programme types affect the labour market prospects of participants. The types are also compared directly to control for selectivity effects.

In the short term, the planned length of participation is associated with lock-in effects. Programmes with a planned duration of more than four months lead to lock-in effects, but lock-in effects can hardly be observed for shorter One-Euro-Jobs. We find no clear relationship between working hours and lock-in effects.

The medium-term effects of different types of One-Euro-Jobs are best viewed against the background of the general treatment effects for the particular group. Looking at employment chances in East Germany, we do not observe positive treatment effects for men and negative effects in the short run and zero effects in the medium term. We find zero effects for participations up to eight months and up to 29 working hours per week and negative effects for participations longer than eight up to twelve months and with a working time of 30 hours or more per week on the chance of being in regular employment 28 months after programme start. Thus, participation does not help men in East Germany, and longer and more intensive treatments even harm them in terms of employment opportunities.

For men and women in West Germany in general, we find small positive effects on the probability to hold a regular job roughly two years after programme start. For short participations of up to four months, we find zero effects, whereas positive effects can be observed for One-Euro-Jobs longer than four months. This indicates that the better short-term performance of short programmes comes at the cost of lacking treatment effects on employment outcomes in the medium term and the disadvantage of longer participations decreases over time. The results for One-Euro-Jobs are in line with Stephan/Pahnke (2008), who look at job creation schemes and find better performance of shorter programmes with respect to cumulated days in regular employment, but equal or superior effects of longer programmes when looking at the share in regular employment 3.5 years after programme start.

For women in East Germany, a medium level of working hours (21 to 29) works best which is also confirmed in pairwise comparisons. This might indicate that working 20 hours or less is too little for this treatment group to achieve considerable treatment effects and labour market attachment. Overall, we find some evidence suggesting that in the medium term a higher amount of treatment (concerning duration or working hours) leads to larger treatment effects - in the positive or negative sense depending on the group we consider - and that a small dose of treatment may prevent lock-in effects on the one hand but that it may be too little for our group of welfare benefit recipients to benefit on the other hand.

As far as policy implications are considered, the results are not simple to interpret, because there are negative employment impacts during the period of programme participation compared with waiting in (nearly) all cases. And thereafter, it takes a considerable period of time until positive employment effects can emerge. Therefore, even the 28 months window may be too short to provide a clear picture on which sub-programme dominates waiting or other programme types in terms of raising the employment performance of participants. But let us suppose that treatment effects are negative and well determined in some cases, both for the cumulated employment duration over the entire 28 months period as well as the employment performance even at the end of the observation window. Then it is quite safe to conclude that a reallocation of participants would improve the effectiveness of the programme. In our case, such evidence is found for East German men. For this group, it would thus be better to let those who participated in One-Euro-Jobs lasting for more than 4 up to 12 months participate in short One-Euro-Jobs of a length of four months or less. Also, East German men, whose treatment encompasses an average working week of 30 to 40 hours, would preferably be treated by One-Euro-Jobs with a shorter working time of one up to 20 hours weekly. Following our line of argumentation above, there is one more policy implication for the treatment of East German women: The effectiveness of the programme can be improved by treating some of the participants who work for 30 to 40 hours in One-Euro-Jobs by a One-Euro-Job with a 21 to 29 hours working week.

For future research, it would be worthwhile to look into the following: First, it might be sensible to observe the labour market outcomes of participants and control group for a longer period of time to gain more certainty about effects, particularly for different lengths of participation. It may be meaningful to simulate the effects of different allocations of participants with a longer observation period (as conducted in Wunsch/Lechner 2008). Second, it would be interesting to gain information as to how far threat effects play a role. Third, more knowledge on the role of programme characteristics is desirable, such as knowing the industry in which the One-Euro-Job is located. Furthermore, it might be worthwhile to compare One-Euro-Jobs to traditional job creation schemes to see whether the better performance of One-Euro-Jobs also holds in direct comparisons or whether it is driven by the particular groups of participants.

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Tables and figures

Table 1
Entries into One-Euro-Jobs and stock of unemployed receiving UB II 2005 to 2008
(in 1,000)

	Inflow into One-Euro-Jobs				Average stock of unemployed people receiving UB II			
	2005	2006	2007	2008	2005	2006	2007	2008
Total	603.9	704.5	667.1	643.7	2,402.0	2,442.8	2,187.0	1,963.0
East Germany	287.9	298.0	265.9	263.7	834.0	846.8	781.0	695.6
% female	44.9	44.6	44.5	45.1	45.2	44.9	46.0	46.5
West Germany	316.0	406.5	401.2	380.0	1,568.0	1,596.0	1,406.1	1,267.5
% female	34.2	35.0	36.9	38.5	43.7	45.4	47.5	48.6

Source: Statistics of the Federal Employment Agency, calculations from the Data Warehouse¹⁸

Table 2
Sample sizes of treated and potential controls

	East Germany		West Germany	
	Men	Women	Men	Women
Potential control group ('waiting')	60,240	50,915	101,443	70,199
Total sample of treated	21,217	19,064	20,891	9,413
<i>Planned duration</i>				
<= 4 months	1,876	1,504	2,704	1,257
>4 to <=8 months	14,044	12,578	12,732	5,510
>8 to <=12 months	5,206	4,891	5,053	2,476
<i>Weekly working hours</i>				
1 to 20	3,884	3,809	2,294	1,529
21 to 29	2,118	1,688	1,708	858
30 to 40	15,065	13,433	16,225	6,684

¹⁸ Table 1 as well as all data and figures in this study exclude the 69 districts in which only local authorities are in charge of administering the UB II, for which no systematic information is available in the period just after the reform due to problems with data collection. According to estimates of the Federal Employment Agency, around 13 % of the unemployed are cared for in these 69 districts. In 2007, around 94,000 entries into work opportunities (including those with a wage) were reported to the statistics of the Federal Employment Agency by 67 of these 69 districts (Federal Employment Agency – Statistics 2007).

Table 3
Data sources

Data sources	Attributes:
Integrated Employment Biographies (IEB)	Employment and unemployment history, information on last job (daily earnings, occupation), education and ALMP history
Job-seeker data base (BewA)	Family status, children, migration background, health status
Unemployment Benefit II Receipt History (LHG)	Household members and their characteristics, outcome "Unemployment benefit II receipt", age
Regional Statistics of the Department of Statistics of the Federal Labour Agency	Regional labour market characteristics (district level)
Programme Datamarts	Programme characteristics (working hours, planned length of participation)
"Verbleibsnachweise"	Outcome "contributory employment"

Table 4
Variable means for participants and controls*

	P	NP	d1	d2	d3	w1	w2	w3
<i>Age in years</i>								
15-20	0.05	0.03	0.08	0.05	0.05	0.05	0.05	0.05
21-24	0.16	0.05	0.21	0.16	0.13	0.18	0.18	0.16
25-30	0.10	0.13	0.11	0.09	0.10	0.09	0.10	0.10
31-35	0.10	0.13	0.10	0.10	0.10	0.10	0.10	0.10
36-40	0.14	0.16	0.12	0.14	0.14	0.13	0.13	0.14
41-45	0.16	0.17	0.15	0.16	0.17	0.16	0.15	0.16
46-50	0.14	0.14	0.12	0.14	0.14	0.14	0.14	0.14
51-57	0.15	0.18	0.11	0.15	0.16	0.16	0.14	0.15
58-62	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01
<i>Health status</i>								
impairment of health	0.12	0.15	0.12	0.12	0.12	0.11	0.14	0.12
<i>Nationality</i>								
German without migration background	0.89	0.79	0.87	0.91	0.88	0.91	0.89	0.89
German with migration background	0.04	0.05	0.04	0.04	0.04	0.03	0.04	0.04
Turkish	0.02	0.06	0.03	0.02	0.03	0.01	0.02	0.02
Soviet Union	0.02	0.03	0.03	0.02	0.02	0.03	0.02	0.01
other foreigners	0.03	0.08	0.04	0.03	0.04	0.03	0.03	0.03
Missing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Family Background</i>								
No partner	0.64	0.58	0.68	0.63	0.65	0.64	0.67	0.64
Partner, not married	0.10	0.09	0.10	0.10	0.09	0.10	0.10	0.10
No children	0.68	0.66	0.72	0.68	0.68	0.66	0.69	0.69
One child	0.16	0.17	0.15	0.17	0.16	0.18	0.17	0.16
Two children	0.10	0.11	0.09	0.11	0.10	0.11	0.10	0.10
Three and more children	0.05	0.06	0.04	0.05	0.05	0.05	0.04	0.05
<i>Education /training</i>								
no secondary schooling degree/no vocational training	0.14	0.21	0.17	0.14	0.15	0.10	0.12	0.16
Secondary school, no vocational education	0.20	0.21	0.23	0.19	0.20	0.16	0.18	0.21
Secondary school, vocational education	0.28	0.25	0.26	0.29	0.26	0.29	0.28	0.28
GCSE, no vocational training	0.05	0.05	0.06	0.05	0.06	0.05	0.06	0.05
GCSE, vocational training	0.27	0.21	0.22	0.29	0.26	0.34	0.30	0.26
A-levels, no vocational training	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01
A-levels, vocational training	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
A-levels, college	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02
<i>Cumulated duration of unempl., 02/2004 to 01/2005</i>								
0 to 6 months	0.17	0.23	0.23	0.16	0.17	0.17	0.17	0.17
7 to 9 months	0.16	0.12	0.18	0.16	0.17	0.17	0.16	0.16
10 to 12 months	0.66	0.65	0.59	0.67	0.66	0.66	0.67	0.66

	P	NP	d1	d2	d3	w1	w2	w3
<i>Cumulated duration of unempl., 02/2000 to 01/2004</i>								
0 months	0.07	0.12	0.09	0.06	0.07	0.06	0.06	0.07
1 to 6 months	0.11	0.10	0.13	0.10	0.10	0.11	0.11	0.10
7 to 12 months	0.12	0.11	0.14	0.12	0.12	0.12	0.12	0.12
13 to 18 months	0.12	0.11	0.13	0.12	0.12	0.12	0.13	0.12
19 to 24 months	0.13	0.11	0.12	0.13	0.13	0.12	0.13	0.13
25 to 30 months	0.12	0.10	0.11	0.12	0.12	0.12	0.12	0.12
31 to 36 months	0.12	0.10	0.10	0.12	0.11	0.12	0.11	0.12
37 to 48 months	0.22	0.25	0.18	0.23	0.22	0.23	0.22	0.22
out-of-labour force during last year	0.24	0.29	0.32	0.22	0.23	0.22	0.23	0.24
<i>Cumulated duration out-of-labour force 01/2000 to 12/2004</i>								
0 months	0.38	0.33	0.28	0.40	0.37	0.40	0.37	0.38
1 to 6 months	0.24	0.27	0.26	0.24	0.25	0.23	0.24	0.25
7 to 12 months	0.09	0.09	0.11	0.09	0.09	0.09	0.10	0.09
13 to 18 months	0.05	0.05	0.06	0.05	0.05	0.05	0.05	0.05
19 to 24 months	0.05	0.04	0.06	0.05	0.05	0.05	0.05	0.05
25 to 30 months	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.04
31 to 36 months	0.04	0.03	0.05	0.04	0.04	0.04	0.04	0.04
37 to 42 months	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03
43 to 60 months	0.08	0.12	0.11	0.07	0.08	0.07	0.08	0.08
<i>Cumulated duration of UI receipt, 02/2004 to 01/2005</i>								
0 months	0.76	0.79	0.75	0.76	0.77	0.76	0.74	0.76
1 to 3 months	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.07
4 to 6 months	0.09	0.07	0.10	0.09	0.08	0.09	0.10	0.09
7 to 9 months	0.05	0.04	0.05	0.05	0.05	0.05	0.06	0.05
10 to 12 months	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
<i>Cumulated duration of UI receipt, 02/2000 to 01/2004</i>								
0 months	0.30	0.40	0.36	0.29	0.32	0.29	0.29	0.31
1 to 3 months	0.09	0.08	0.08	0.09	0.09	0.09	0.09	0.09
4 to 6 months	0.16	0.13	0.16	0.16	0.15	0.16	0.15	0.16
7 to 12 months	0.31	0.27	0.28	0.31	0.30	0.31	0.30	0.30
13 to 18 months	0.11	0.09	0.09	0.11	0.11	0.11	0.12	0.11
> 18 months	0.04	0.04	0.02	0.04	0.04	0.04	0.04	0.04
<i>Cumulated duration of UA receipt, 02/2004 to 01/2005</i>								
0 months	0.22	0.29	0.29	0.21	0.23	0.21	0.21	0.22
1 to 3 months	0.08	0.06	0.08	0.08	0.07	0.07	0.08	0.07
4 to 6 months	0.11	0.08	0.11	0.12	0.11	0.11	0.12	0.12
7 to 9 months	0.10	0.09	0.10	0.10	0.10	0.11	0.11	0.10
10 to 12 months	0.49	0.48	0.42	0.50	0.48	0.49	0.49	0.48

	P	NP	d1	d2	d3	w1	w2	w3
<i>Cumulated duration of UA receipt, 02/2000 to 01/2004</i>								
0 months	0.35	0.39	0.42	0.33	0.35	0.34	0.35	0.35
1 to 6 months	0.11	0.09	0.11	0.11	0.10	0.11	0.11	0.11
7 to 12 months	0.10	0.08	0.10	0.09	0.10	0.10	0.10	0.10
13 to 18 months	0.09	0.08	0.08	0.09	0.09	0.09	0.08	0.09
19 to 24 months	0.08	0.07	0.07	0.08	0.08	0.08	0.08	0.08
25 to 30 months	0.08	0.06	0.06	0.08	0.07	0.08	0.07	0.08
31 to 36 months	0.07	0.06	0.05	0.07	0.07	0.07	0.07	0.07
37 to 42 months	0.06	0.06	0.05	0.06	0.06	0.06	0.05	0.06
43 to 48 months	0.08	0.11	0.07	0.08	0.08	0.08	0.09	0.08
UI ben. receipt, Dec. 31st 2004	0.03	0.04	0.04	0.03	0.03	0.04	0.03	0.03
UA ben. receipt, Dec. 31st 2004	0.75	0.68	0.67	0.76	0.74	0.76	0.76	0.75
<i>Cumulated duration of regular employment, 01/2000 to 12/2004</i>								
0 months	0.44	0.46	0.43	0.45	0.44	0.46	0.41	0.45
1 to 6 months	0.17	0.13	0.17	0.17	0.16	0.16	0.17	0.17
7 to 12 months	0.10	0.09	0.11	0.10	0.10	0.11	0.11	0.10
13 to 18 months	0.11	0.11	0.11	0.11	0.12	0.11	0.12	0.11
19 to 24 months	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06
25 to 30 months	0.05	0.05	0.05	0.04	0.05	0.04	0.05	0.05
31 to 36 months	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03
37 to 42 months	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02
43 to 60 months	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01
<i>ALMP participation in last five years (yes)</i>								
Job creation schemes	0.25	0.12	0.18	0.27	0.24	0.27	0.24	0.25
Private employment subsidy	0.07	0.07	0.07	0.08	0.07	0.07	0.07	0.07
Further vocational training	0.22	0.16	0.22	0.22	0.22	0.22	0.19	0.23
Retraining	0.04	0.03	0.04	0.04	0.04	0.03	0.03	0.04
Short-term training (classroom)	0.37	0.29	0.41	0.36	0.38	0.37	0.31	0.38
Short-term training (practical)	0.11	0.07	0.11	0.11	0.09	0.10	0.11	0.11
Start-up subsidy	0.01	0.02	0.02	0.01	0.01	0.01	0.02	0.01
Private placement service, some tasks	0.05	0.04	0.05	0.05	0.04	0.05	0.04	0.05
Private placement service, all tasks	0.06	0.04	0.07	0.06	0.05	0.06	0.05	0.06
other ALMP	0.10	0.05	0.12	0.10	0.09	0.10	0.11	0.10
<i>Time since end of last ALMP</i>								
1 to 6 months	0.24	0.15	0.27	0.24	0.24	0.25	0.23	0.24
7 to 12 months	0.16	0.11	0.16	0.16	0.15	0.16	0.16	0.16
13 to 24 months	0.16	0.13	0.15	0.16	0.16	0.16	0.15	0.16
> 24 months	0.44	0.61	0.43	0.43	0.45	0.43	0.46	0.44
ALMP during last year	0.40	0.27	0.42	0.41	0.39	0.41	0.39	0.40
<i>Number of ALMP participations in the last five years</i>								
no programme participation	0.23	0.40	0.25	0.22	0.25	0.22	0.26	0.23
One	0.27	0.27	0.26	0.27	0.27	0.28	0.31	0.26
Two	0.23	0.17	0.21	0.23	0.23	0.24	0.22	0.23
Three	0.14	0.09	0.13	0.15	0.14	0.14	0.12	0.15
Four	0.07	0.04	0.07	0.07	0.07	0.07	0.06	0.07
Five and more	0.06	0.03	0.07	0.06	0.05	0.05	0.04	0.06

	P	NP	d1	d2	d3	w1	w2	w3
<i>Last professional status</i>								
blue-collar worker	0.36	0.35	0.37	0.36	0.36	0.32	0.35	0.37
Skilled worker / foreman	0.16	0.16	0.15	0.16	0.15	0.15	0.16	0.16
White-collar worker	0.13	0.14	0.12	0.12	0.16	0.13	0.13	0.13
part-time	0.20	0.17	0.16	0.22	0.18	0.25	0.21	0.20
no job yet	0.15	0.18	0.19	0.14	0.15	0.15	0.14	0.15
<i>Size of last establishment</i>								
1 to 20 employees	0.22	0.26	0.21	0.23	0.22	0.23	0.22	0.22
21 to 50 employees	0.13	0.12	0.13	0.14	0.12	0.13	0.13	0.13
51 to 100 employees	0.13	0.11	0.12	0.13	0.12	0.13	0.14	0.13
101 to 200 employees	0.12	0.10	0.12	0.12	0.12	0.12	0.13	0.12
201 to 400 employees	0.11	0.09	0.10	0.11	0.12	0.11	0.10	0.11
> 400 employees	0.11	0.11	0.10	0.11	0.12	0.10	0.12	0.11
Missing	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03
<i>Last monthly real wage (deflated with CPI, 2000=100)</i>								
Zero	0.03	0.05	0.03	0.03	0.03	0.03	0.03	0.03
>0 to 500 Euros	0.05	0.05	0.07	0.05	0.05	0.06	0.06	0.05
>500 to 1000 Euros	0.26	0.20	0.25	0.27	0.25	0.29	0.28	0.25
>1000 to 1500 Euros	0.32	0.26	0.28	0.33	0.32	0.31	0.31	0.32
>1500 to 2000 Euros	0.12	0.15	0.11	0.12	0.13	0.10	0.12	0.12
> 2000 Euros	0.06	0.11	0.06	0.06	0.07	0.05	0.06	0.06
<i>Time since end of last contributory job</i>								
1 to 6 months	0.13	0.10	0.13	0.13	0.12	0.12	0.13	0.13
7 to 12 months	0.10	0.07	0.10	0.10	0.09	0.09	0.10	0.10
13 to 24 months	0.18	0.15	0.18	0.18	0.18	0.19	0.18	0.18
25 to 36 months	0.14	0.13	0.13	0.15	0.15	0.14	0.16	0.14
37 to 48 months	0.10	0.11	0.09	0.11	0.10	0.11	0.10	0.10
> 48 months	0.20	0.27	0.18	0.20	0.20	0.20	0.19	0.20
<i>Average duration of contributory jobs between 01/2000 and 12/2004</i>								
1 to 6 months	0.26	0.21	0.28	0.26	0.25	0.27	0.28	0.25
7 to 12 months	0.25	0.20	0.23	0.26	0.24	0.25	0.24	0.25
13 to 18 months	0.13	0.12	0.11	0.13	0.14	0.13	0.13	0.13
19 to 24 months	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04
25 to 36 months	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03
37 to 60 months	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01
missing	0.13	0.19	0.12	0.13	0.14	0.13	0.13	0.13
<i>Number of contributory jobs in last five years</i>								
One	0.41	0.36	0.39	0.42	0.40	0.43	0.41	0.41
Two	0.23	0.20	0.22	0.23	0.23	0.22	0.24	0.23
Three	0.06	0.06	0.06	0.06	0.07	0.06	0.07	0.07
Four or more	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01
Minor employment, Jan. 31st 2005	0.06	0.12	0.05	0.06	0.06	0.07	0.07	0.06

	P	NP	d1	d2	d3	w1	w2	w3
<i>Partner was unemployed between 01/2000 to 12/2004 for</i>								
0 months	0.09	0.12	0.08	0.09	0.09	0.08	0.08	0.10
1 to 12 months	0.09	0.10	0.09	0.09	0.09	0.08	0.08	0.09
13 to 60 months	0.05	0.06	0.05	0.06	0.05	0.06	0.05	0.05
25 to 30 months	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02
31 to 36 months	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
37 to 42 months	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.02
43 to 60 months	0.06	0.07	0.04	0.07	0.06	0.07	0.06	0.06
no partner	0.64	0.58	0.68	0.63	0.65	0.64	0.67	0.64
partner information missing1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Partner not empl. or job-seeker in the last 5 years for</i>								
1 to 12 months	0.08	0.09	0.06	0.08	0.07	0.08	0.07	0.08
13 to 24 months	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
25 to 30 months	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
31 to 36 months	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
37 to 42 months	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
43 to 60 months	0.12	0.15	0.12	0.11	0.12	0.10	0.11	0.12
no partner	0.64	0.58	0.68	0.63	0.65	0.64	0.67	0.64
<i>Partner was regularly employed between 01/2000 to 12/2004 for</i>								
0 months	0.20	0.24	0.18	0.20	0.20	0.19	0.18	0.20
1 to 12 months	0.06	0.06	0.05	0.06	0.05	0.06	0.05	0.06
13 to 24 months	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.04
25 to 60 months	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01
31 to 36 months	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
37 to 42 months	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
43 to 60 months	0.04	0.03	0.03	0.04	0.03	0.04	0.03	0.04
no partner	0.64	0.58	0.68	0.63	0.65	0.64	0.67	0.64
<i>Partner education/training</i>								
Secondary school, no vocational education	0.06	0.07	0.05	0.06	0.06	0.05	0.05	0.06
Secondary school, vocational education	0.06	0.06	0.04	0.06	0.05	0.06	0.05	0.06
GCSE or A-levels, vocational education or college	0.07	0.07	0.06	0.08	0.06	0.09	0.07	0.07
no partner	0.64	0.58	0.68	0.63	0.65	0.64	0.67	0.64
Partner without bak_id1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
no ieb_konto_id1	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.04
Missing	0.08	0.10	0.07	0.09	0.07	0.09	0.08	0.08

	P	NP	d1	d2	d3	w1	w2	w3
<i>Regional information</i>								
Local unempl. rate in January 2005	18.44	17.12	17.46	18.84	18.01	18.65	16.54	18.72
%age change in local unempl. rate in January 2005	10.94	12.81	12.30	10.89	10.43	10.70	9.71	11.08
Percentage of LTU in Jan. 2005	36.54	36.20	34.42	37.02	36.31	36.15	35.00	36.87
total %age change of percentage of LTU in Jan. 2005	-1.61	-1.43	-2.28	-1.26	-2.34	-2.00	-1.86	-1.53
Vacancy-unemployment ratio in Jan. 2005	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02
%age change vacancy-unemployment ratio in January 2005	-8.86	-9.48	-13.69	-9.01	-6.91	-16.75	-23.83	-5.24
Cities in West Germany with average LM conditions	0.07	0.11	0.16	0.03	0.13	0.02	0.04	0.08
Cities in West Germany with above-average LM conditions	0.02	0.03	0.04	0.02	0.02	0.05	0.02	0.02
Rural areas in West Germany with average LM conditions	0.09	0.11	0.08	0.10	0.07	0.06	0.04	0.10
Rural areas in W. G. with above average LM conditions and high seasonal dynamics	0.04	0.03	0.03	0.05	0.02	0.05	0.02	0.04
Rural areas in W. G., very favourite LM cond., seasonal dynamics and low LTU	0.03	0.03	0.04	0.02	0.03	0.03	0.05	0.02
Rural areas in W. G., very favourite LM cond. and low LTU	0.05	0.05	0.04	0.05	0.04	0.06	0.12	0.04
Urban areas with average labour market cond.	0.07	0.11	0.14	0.08	0.03	0.10	0.04	0.07
Rural areas with below average LM conditions	0.09	0.05	0.07	0.09	0.08	0.06	0.15	0.09
Rural areas in East Germany with severe LM conditions	0.21	0.12	0.14	0.23	0.17	0.35	0.22	0.18
Rural areas in East Germany with very severe LM conditions	0.09	0.07	0.05	0.12	0.04	0.06	0.02	0.11
Looking for part-time job	0.04	0.07	0.05	0.03	0.05	0.05	0.04	0.04

* P: participant; NP: non-participant; d1: planned length <= 4 months; d2: planned length >4 -8 months; d3: >8 – 12 months, w1: 1-20 hours, w2: 21- 29 hours, w3: 30 and more hours per week

¹ Personal identifiers are missing so that information on education and employment history are not available for partners in these cases.

Table 5
Calipers implemented for Matching (in $x'\beta$)

	East Germany		West Germany	
	Men	Women	Men	Women
overall vs waiting	0.00050	0.00071	0.00059	0.00084
Planned duration				
<= 4 months vs waiting	0.00470	0.00260	0.00048	0.00130
<= 4 months vs >4 -8 months	0.00180	0.00220	0.00140	0.00530
<= 4 months vs >8 - 12 months	0.01900	0.04900	0.00400	0.00350
>4 -8 months vs waiting	0.00058	0.00072	0.00083	0.00110
>4 -8 months vs <= 4 months	0.00960	0.02100	0.00560	0.00660
>4 -8 months vs >8 - 12 months	0.02700	0.00550	0.00250	0.00570
>8 - 12 months vs waiting	0.00039	0.00062	0.00077	0.00086
>8 - 12 months vs <= 4 months	0.00650	0.01500	0.00330	0.00400
>8 - 12 months vs >4 -8 months	0.00170	0.00250	0.00220	0.00230
Working hours				
1- 20h vs waiting	0.00110	0.00140	0.00170	0.00097
1- 20h vs 21 - 29h	0.01000	0.01100	0.01100	0.02700
1- 20h vs 30 - 40h	0.00093	0.00150	0.00097	0.00590
21 - 29h vs waiting	0.00150	0.00079	0.00060	0.00250
21 - 29h vs 1- 20h	0.00840	0.00600	0.00700	0.00910
21 - 29h vs 30 - 40h	0.00200	0.00150	0.00098	0.00430
30 - 40h vs waiting	0.00061	0.00060	0.00063	0.00089
30 - 40h vs 1- 20h	0.00420	0.00350	0.00480	0.01300
30 - 40h vs 21 - 29h	0.13000	0.04100	0.00400	0.00760

Table 6
Shares of groups by region and gender in participant and control samples (in %)

		Potential controls	Treated	Planned duration (in mths)			Working hours		
				<= 4	>4 - <=8	>8 -<=12	1 to 20	20 to 29	30 to 40
<i>Men East G.</i>									
Age	15-25	7.6	23.9	37.6	24.4	17.9	27.8	25.5	22.6
	25-35	24.8	16.6	14.3	16.5	17.5	15.8	16.2	16.9
	36-50	47.4	41.1	34.9	40.7	44.3	38.6	41.7	41.7
	51-62	20.1	18.4	13.2	18.4	20.4	17.9	16.6	18.8
Last job ended in	2004	15.0	13.8	15.9	13.3	14.2	14.9	13.8	13.5
	2001 - 2003	33.5	34.1	32.8	34.2	34.0	34.0	36.2	33.8
	1992 - 2000	39.9	36.8	29.2	37.7	37.2	35.1	36.3	37.4
	<1992 or never	11.7	15.4	22.1	14.7	14.7	16.0	13.7	15.3
	no qualification	30.5	30.6	37.3	28.4	34.5	26.5	28.0	32.1
	apprenticeship	64.7	65.9	59.6	68.6	60.8	69.7	68.5	64.6
	higher	4.8	3.5	3.1	3.0	4.8	3.7	3.5	3.4
	foreigner	7.6	2.9	4.1	1.9	5.0	2.8	1.6	3.1
<i>Women East G.</i>									
Age	15-25	7.4	17.5	28.8	17.4	14.1	19.2	19.9	16.7
	25-35	23.3	17.4	17.4	16.8	18.7	16.6	18.6	17.4
	36-50	48.9	47.0	41.0	47.4	47.7	45.8	44.7	47.7
	51-62	20.5	18.2	12.8	18.3	19.6	18.4	16.8	18.3
Last job ended in	2004	9.4	9.7	11.3	9.3	10.3	9.7	11.6	9.5
	2001 - 2003	23.7	24.2	24.4	23.4	26.2	24.1	27.8	23.8
	1992 - 2000	46.3	47.0	37.7	48.7	45.6	45.8	42.9	47.8
	<1992 or never	20.6	19.1	26.6	18.6	17.9	20.5	17.7	18.9
	no qualification	31.3	23.7	27.6	20.5	30.5	18.2	22.3	25.4
	apprenticeship	62.8	69.6	64.6	72.8	62.9	74.5	70.7	68.1
	higher	5.9	6.7	7.9	6.7	6.6	7.3	7.1	6.5
	foreigner	6.9	2.9	5.5	2.0	4.2	3.9	1.5	2.8
<i>Men West G.</i>									
Age	15-25	7.5	21.8	24.3	22.0	20.1	21.5	21.2	22.1
	25-35	25.9	23.9	26.4	23.5	23.9	22.9	22.5	24.2
	36-50	46.0	42.1	39.7	41.9	43.8	42.1	42.9	42.0
	51-62	20.6	12.1	9.7	12.6	12.3	13.5	13.4	11.7
Last job ended in	2004	15.2	18.9	21.1	19.0	17.7	19.6	19.9	18.8
	2001 - 2003	42.1	42.8	40.7	42.9	43.5	43.5	45.3	42.4
	1992 - 2000	27.7	22.2	20.3	22.4	23.1	22.5	18.9	22.5
	<1992 or never	15.0	16.1	18.0	15.7	15.8	14.5	16.0	16.2
	no qualification	56.0	58.4	59.7	58.5	57.1	55.3	53.3	59.4
	apprenticeship	39.2	38.4	37.1	38.3	39.5	41.0	42.7	37.6
	higher	4.8	3.3	3.2	3.2	3.5	3.8	4.0	3.1
	foreigner	22.8	13.2	14.5	12.4	14.2	12.6	15.9	12.9
<i>Women West G.</i>									
Age	15-25	9.4	22.3	23.1	22.3	22.0	19.3	20.3	23.4
	25-35	26.3	22.6	23.6	22.0	23.4	24.3	25.4	22.0
	36-50	44.1	43.8	42.5	44.5	43.0	44.2	44.1	43.5
	51-62	20.2	11.3	10.9	11.3	11.6	12.3	10.3	11.2
Last job ended in	2004	12.8	16.9	17.3	17.2	16.0	16.4	18.3	16.9
	2001 - 2003	31.4	38.2	34.8	39.2	37.9	38.5	40.6	37.9
	1992 - 2000	21.6	19.2	19.4	18.8	20.1	19.7	16.9	19.2
	<1992 or never	34.2	25.8	28.5	24.9	26.0	25.4	24.2	26.1
	no qualification	63.7	54.5	59.3	53.9	52.8	49.1	53.5	56.1
	apprenticeship	30.8	39.0	34.8	39.7	40.0	42.8	40.7	37.6
	higher	5.5	6.5	5.9	6.4	7.3	8.1	5.8	6.3
	foreigner	22.4	11.0	12.7	10.0	11.8	10.9	12.2	10.8

Table 7
Proportion in regular employment for all controls, treatments and matched controls 28 months after programme start (in %)

	East Germany						West Germany					
	Men			Women			Men			Women		
	all controls	matched controls	treated	all controls	matched controls	treated	all controls	matched controls	treated	all controls	matched controls	treated
Total sample	16.7	17.1	16.9	12.5	13.7	14.3	20.3	24.0	25.3	16.7	20.4	23.4
Planned duration												
<=4 months vs waiting	16.7	20.4	19.5	12.5	15.6	15.9	20.3	24.8	25.1	16.7	20.4	21.9
<=4 months vs >4 -8 months	17.5	20.2	19.8	14.5	16.1	16.0	25.2	26.1	25.4	23.6	23.7	21.9
<=4 months vs >8 - 12 months	14.7	17.3	19.6	13.8	16.6	16.1	26.1	26.4	25.3	24.4	23.9	22.1
>4 -8 months vs waiting	16.7	17.3	17.3	12.5	13.6	14.4	20.3	24.0	25.2	16.7	20.4	23.5
>4 -8 months vs <=4 months	19.9	19.9	17.5	16.1	15.3	14.5	25.3	25.0	25.2	22.0	23.3	23.4
>4 -8 months vs >8 - 12 months	14.7	15.4	17.4	13.8	14.4	14.5	26.1	25.5	25.2	24.4	22.3	23.6
>8 - 12 months vs waiting	16.7	16.4	14.6	12.5	13.2	13.7	20.3	23.1	25.9	16.7	21.0	24.3
>8 - 12 months vs <=4 months	19.9	17.1	14.7	16.1	15.1	13.9	25.3	24.9	26.0	22.0	22.4	24.4
>8 - 12 months vs >4 -8 months	17.5	16.4	14.7	14.5	14.3	13.9	25.2	24.9	26.1	23.6	25.0	24.5
Working hours												
1- 20h vs waiting	16.7	18.5	18.7	12.5	14.1	14.0	20.3	24.9	26.2	16.7	21.0	24.1
1- 20h vs 21 - 29h	18.0	17.9	18.8	17.8	17.3	14.1	27.9	26.6	26.2	25.5	25.6	24.7
1- 20h vs 30 - 40h	16.4	18.7	18.8	14.2	15.0	14.0	25.0	26.5	26.1	22.9	24.8	24.5
21 - 29h vs waiting	16.7	17.8	17.9	12.5	14.6	17.8	20.3	25.5	27.9	16.7	21.4	25.4
21 - 29h vs 1- 20h	18.8	18.0	18.0	14.0	14.6	17.7	26.2	28.4	27.8	24.5	24.4	25.6
21 - 29h vs 30 - 40h	16.4	17.5	17.8	14.2	15.9	17.8	25.0	26.8	27.8	22.9	24.0	25.2
30 - 40h vs waiting	16.7	17.0	16.2	12.5	13.4	14.1	20.3	23.7	25.0	16.7	20.4	22.8
30 - 40h vs 1- 20h	18.8	17.8	16.4	14.0	14.1	14.3	26.2	24.1	25.0	24.5	24.2	23.0
30 - 40h vs 21 - 29h	18.0	16.0	16.5	17.8	17.2	14.3	27.9	23.6	25.0	25.5	23.2	22.7

Table 8
Mean standardised absolute bias

	East Germany				West Germany			
	Men		Women		Men		Women	
	before matching	after	before matching	after	before matching	after	before matching	after
Total sample	8.06	0.39	7.11	0.36	9.69	0.28	11.44	0.41
Planned duration								
<=4 months vs waiting	16.84	1.63	11.66	1.31	12.01	0.42	11.66	0.52
<=4 months vs >4 -8 months	9.96	0.90	10.90	0.86	6.60	0.92	8.20	1.33
<=4 months vs >8 - 12 months	9.94	1.13	8.47	0.69	5.85	0.81	5.12	0.87
>4 -8 months vs waiting	9.23	0.36	8.56	0.47	9.66	0.29	11.80	0.34
>4 -8 months vs <=4 months	9.96	1.64	10.78	1.68	6.60	1.10	8.20	1.61
>4 -8 months vs >8 - 12 months	6.53	1.04	5.87	1.17	5.55	0.91	7.30	1.03
>8 - 12 months vs waiting	7.53	0.48	8.86	0.48	10.36	0.47	12.74	0.51
>8 - 12 months vs <=4 months	9.94	1.10	8.47	1.32	5.85	0.82	5.12	0.81
>8 - 12 months vs >4 -8 months	6.53	0.68	5.87	0.86	5.55	1.28	7.30	1.25
Working hours								
1- 20h vs waiting	12.32	0.53	10.30	0.75	14.06	0.52	14.19	0.64
1- 20h vs 21 - 29h	7.25	1.22	7.25	1.28	7.39	1.15	7.04	2.00
1- 20h vs 30 - 40h	5.69	0.74	5.71	0.83	6.44	0.80	8.83	1.03
21 - 29h vs waiting	11.49	1.36	12.10	1.04	13.85	0.67	15.99	0.69
21 - 29h vs 1- 20h	7.25	1.22	7.25	1.29	7.39	0.82	7.04	1.21
21 - 29h vs 30 - 40h	6.46	0.53	6.69	0.68	7.92	0.73	9.88	1.24
30 - 40h vs waiting	7.69	0.29	7.60	0.37	9.03	0.24	12.01	0.42
30 - 40h vs 1- 20h	5.69	1.10	5.71	1.28	7.25	1.55	8.83	1.49
30 - 40h vs 21 - 29h	6.46	2.26	6.58	2.35	7.92	1.51	9.88	1.48

Table 9
Pseudo R² before and after matching

	East Germany				West Germany			
	Men		Women		Men		Women	
	before matching	after	before matching	after	before matching	after	before matching	after
Total sample	0.097	0.000	0.088	0.000	0.105	0.000	0.114	0.000
Planned duration								
<=4 months vs waiting	0.149	0.003	0.112	0.003	0.097	0.000	0.099	0.001
<=4 months vs >4 -8 months	0.053	0.001	0.082	0.001	0.086	0.001	0.089	0.001
<=4 months vs >8 - 12 months	0.074	0.002	0.065	0.001	0.031	0.001	0.022	0.001
>4 -8 months vs waiting	0.105	0.000	0.095	0.000	0.107	0.000	0.112	0.000
>4 -8 months vs <=4 months	0.053	0.004	0.081	0.004	0.086	0.002	0.089	0.003
>4 -8 months vs >8 - 12 months	0.084	0.002	0.074	0.002	0.086	0.001	0.065	0.001
>8 - 12 months vs waiting	0.078	0.001	0.077	0.000	0.097	0.000	0.107	0.001
>8 - 12 months vs <=4 months	0.074	0.002	0.065	0.003	0.031	0.001	0.022	0.001
>8 - 12 months vs >4 -8 months	0.084	0.001	0.074	0.001	0.086	0.002	0.065	0.001
Working hours								
1- 20h vs waiting	0.143	0.000	0.126	0.001	0.126	0.001	0.117	0.001
1- 20h vs 21 - 29h	0.081	0.003	0.091	0.002	0.083	0.002	0.099	0.005
1- 20h vs 30 - 40h	0.053	0.001	0.061	0.001	0.077	0.001	0.093	0.001
21 - 29h vs waiting	0.191	0.003	0.153	0.002	0.116	0.001	0.121	0.001
21 - 29h vs 1- 20h	0.081	0.002	0.091	0.002	0.083	0.001	0.099	0.003
21 - 29h vs 30 - 40h	0.080	0.001	0.080	0.001	0.087	0.001	0.104	0.001
30 - 40h vs waiting	0.082	0.000	0.078	0.000	0.096	0.000	0.112	0.000
30 - 40h vs 1- 20h	0.053	0.002	0.061	0.002	0.078	0.002	0.093	0.003
30 - 40h vs 21 - 29h	0.080	0.009	0.080	0.010	0.087	0.002	0.104	0.002

Table 10
ATT on regular employment, 12 and 28 months after programme start (in percentage points)

	East Germany				West Germany				
	Men		Women		Men		Women		
	12 months	28 months	12 months	28 months	12 months	28 months	12 months	28 months	
overall vs waiting	-0.9 ***	-0.3	-0.6 **	0.6 *	-0.8 ***	1.3 ***	-0.4	3.0 ***	
Planned duration									
<= 4 months vs waiting	-0.3	-0.9	0.5	0.3	0.0	0.4	1.0	1.5	
<= 4 months vs >4 -8 months	1.7 **	-0.5	1.3	-0.1	1.4 *	-0.7	1.9	-1.7	
<=4 months vs >8 - 12 months	2.5 ***	2.3 **	1.3	-0.6	1.2	-1.1	1.5	-1.8	
>4 -8 months vs waiting	-1.3 ***	0.0	-0.8 ***	0.8 **	-1.1 ***	1.2 ***	-0.1	3.1 ***	
>4 -8 months vs <= 4 months	-2.9 ***	-2.4 **	-2.2 **	-0.7	-1.6 *	0.2	-1.3	0.1	
>4 -8 months vs >8 - 12 months	-0.2	2.0 ***	-0.1	0.1	1.2 *	-0.3	2.4 ***	1.3	
>8 - 12 months vs waiting	-1.2 ***	-1.8 ***	-0.8 **	0.5	-0.8 *	2.8 ***	-1.4 *	3.3 ***	
>8 - 12 months vs <= 4 months	-3.2 ***	-2.4 *	-3.0 ***	-1.3	-1.6 *	1.1	-2.0	2.0	
>8 - 12 months vs >4 -8 months	0.0	-1.7 ***	-0.2	-0.4	-0.1	1.2	-1.3	-0.6	
Working hours									
1- 20h vs waiting	-1.0 **	0.1	-1.4 ***	-0.1	-0.6	1.3	-1.2	3.1 ***	
1- 20h vs 21 - 29h	0.7	0.9	-1.4	-3.2 **	-0.1	-0.4	-1.2	-0.9	
1- 20h vs 30 - 40h	0.0	0.1	-1.4 ***	-1.0	0.4	-0.4	-0.7	-0.3	
21 - 29h vs waiting	-1.1 *	0.0	-0.1	3.2 ***	-1.0	2.4 **	0.1	4.1 ***	
21 - 29h vs 1- 20h	-1.3	0.0	2.1 **	3.0 **	-1.3	-0.6	0.4	1.1	
21 - 29h vs 30 - 40h	-0.3	0.3	0.7	1.9 *	-0.4	1.0	1.6	1.3	
30 - 40h vs waiting	-1.3 ***	-0.8 **	-0.5 *	0.7 **	-1.0 ***	1.2 ***	-0.7	2.4 ***	
30 - 40h vs 1- 20h	-0.9 *	-1.4 *	1.2 **	0.2	0.2	0.8	-0.2	-1.2	
30 - 40h vs 21 - 29h	0.7	0.5	-2.9 **	-2.8 *	0.7	1.4	0.1	-0.5	

* p<0.1, ** p<0.05, *** p<0.01

Table 11
ATT on cumulated months in regular employment (in months)

months	East Germany						West Germany					
	Men			Women			Men			Women		
	1 to 12	1 to 28	13 to 28	1 to 12	1 to 28	13 to 28	1 to 12	1 to 28	13 to 28	1 to 12	1 to 28	13 to 28
overall vs waiting	-0.2 ***	-0.3 ***	-0.1 ***	-0.2 ***	-0.1 **	0.0	-0.3 ***	-0.2 ***	0.0	-0.2 ***	0.1	0.3 ***
Planned duration												
<= 4 months vs waiting	-0.1	-0.2	-0.1	-0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.4 *	0.4 **
<= 4 months vs >4 - 8 months	0.2 ***	0.3 **	0.1	0.2 ***	0.3 *	0.1	0.3 ***	0.3 *	0.1	0.4 ***	0.4	0.0
<=4 months vs >8 - 12 months	0.3 ***	0.7 ***	0.4 ***	0.2 ***	0.2	0.0	0.3 ***	0.5 ***	0.1	0.4 ***	0.5 *	0.1
>4 - 8 months vs waiting	-0.2 ***	-0.4 ***	-0.1 ***	-0.2 ***	-0.1 **	0.0	-0.3 ***	-0.3 ***	0.0	-0.2 ***	0.1	0.4 ***
>4 - 8 months vs <= 4 months	-0.4 ***	-0.8 ***	-0.4 ***	-0.4 ***	-0.6 ***	-0.2	-0.3 ***	-0.5 ***	-0.2	-0.4 ***	-0.6 *	-0.2
>4 - 8 months vs >8 - 12 months	0.0	0.2	0.2 **	0.0	0.0	0.0	0.2 ***	0.2 *	0.1	0.2 ***	0.6 ***	0.4 **
>8 - 12 months vs waiting	-0.2 ***	-0.5 ***	-0.3 ***	-0.2 ***	-0.2 **	0.0	-0.3 ***	-0.1	0.2 **	-0.4 ***	-0.2	0.2 *
>8 - 12 months vs <= 4 months	-0.3 ***	-0.9 ***	-0.5 ***	-0.3 ***	-0.6 ***	-0.3 *	-0.4 ***	-0.5 **	-0.1	-0.4 ***	-0.5 *	-0.1
>8 - 12 months vs >4 - 8 months	0.0	-0.2	-0.2 **	0.0	-0.1	-0.1	-0.1 **	0.0	0.1	-0.1	-0.4 *	-0.2
Working hours												
1- 20h vs waiting	-0.2 ***	-0.3 ***	-0.1	-0.2 ***	-0.3 **	-0.1	-0.3 ***	-0.3 **	-0.1	-0.3 ***	-0.1	0.2
1- 20h vs 21 - 29h	0.0	0.1	0.1	0.0	-0.3	-0.3 **	0.0	-0.3	-0.3	-0.1	-0.4	-0.3
1- 20h vs 30 - 40h	0.0	0.1	0.1	-0.1	-0.2 **	-0.2 **	0.0	0.0	0.0	0.0	-0.1	-0.1
21 - 29h vs waiting	-0.2 ***	-0.3 **	-0.1	-0.2 ***	0.0	0.2	-0.3 ***	0.0	0.2 *	-0.2 **	0.3	0.5 **
21 - 29h vs 1- 20h	-0.1	-0.2	-0.1	0.1	0.3 *	0.3 *	-0.1	-0.1	0.0	0.0	0.2	0.2
21 - 29h vs 30 - 40h	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.1	0.4	0.3
30 - 40h vs waiting	-0.2 ***	-0.4 ***	-0.2 ***	-0.2 ***	-0.1 *	0.0	-0.3 ***	-0.2 ***	0.0	-0.3 ***	0.0	0.3 ***
30 - 40h vs 1- 20h	0.0	-0.2 *	-0.2 *	0.0	0.1	0.1	0.0	0.2	0.2	0.0	-0.2	-0.2
30 - 40h vs 21 - 29h	0.0	0.0	0.0	-0.2 **	-0.5 **	-0.3 *	0.1	0.1	0.1	0.1	0.0	-0.1

* p<0.1, ** p<0.05, *** p<0.01

Figure 1
Distribution of the Propensity Score

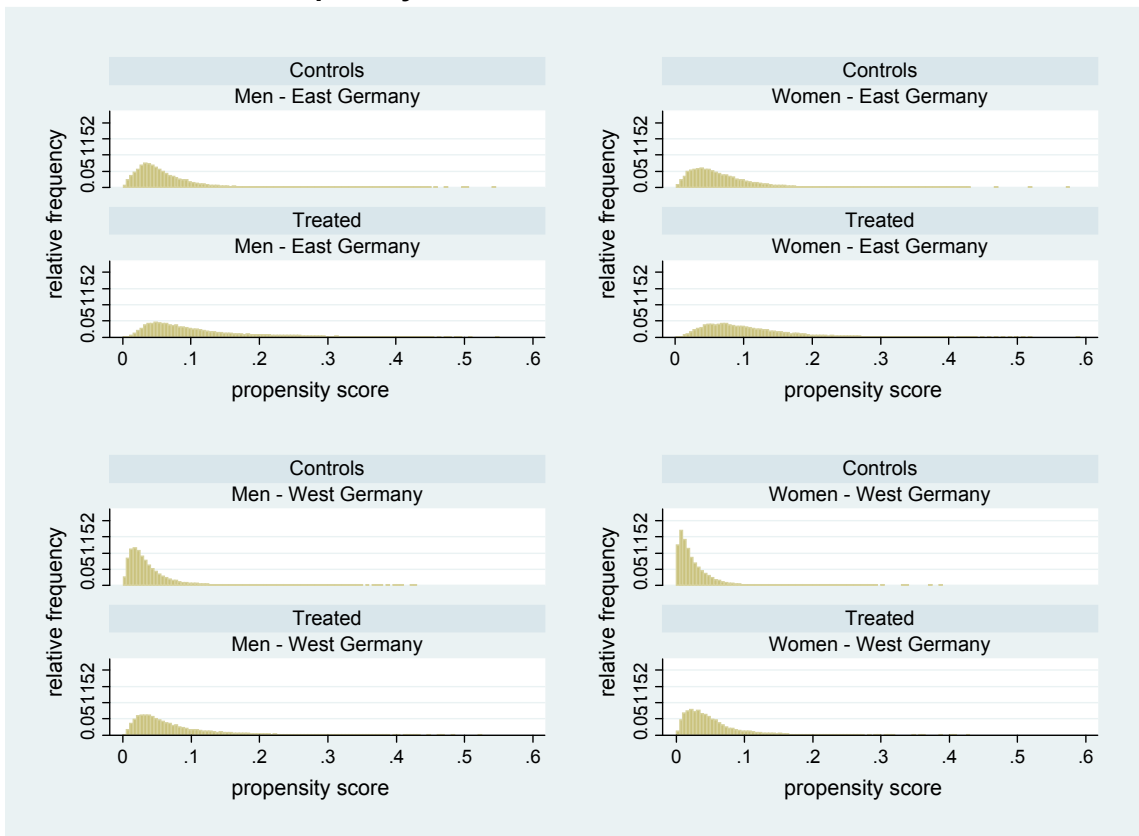


Figure 2
ATT on regular employment

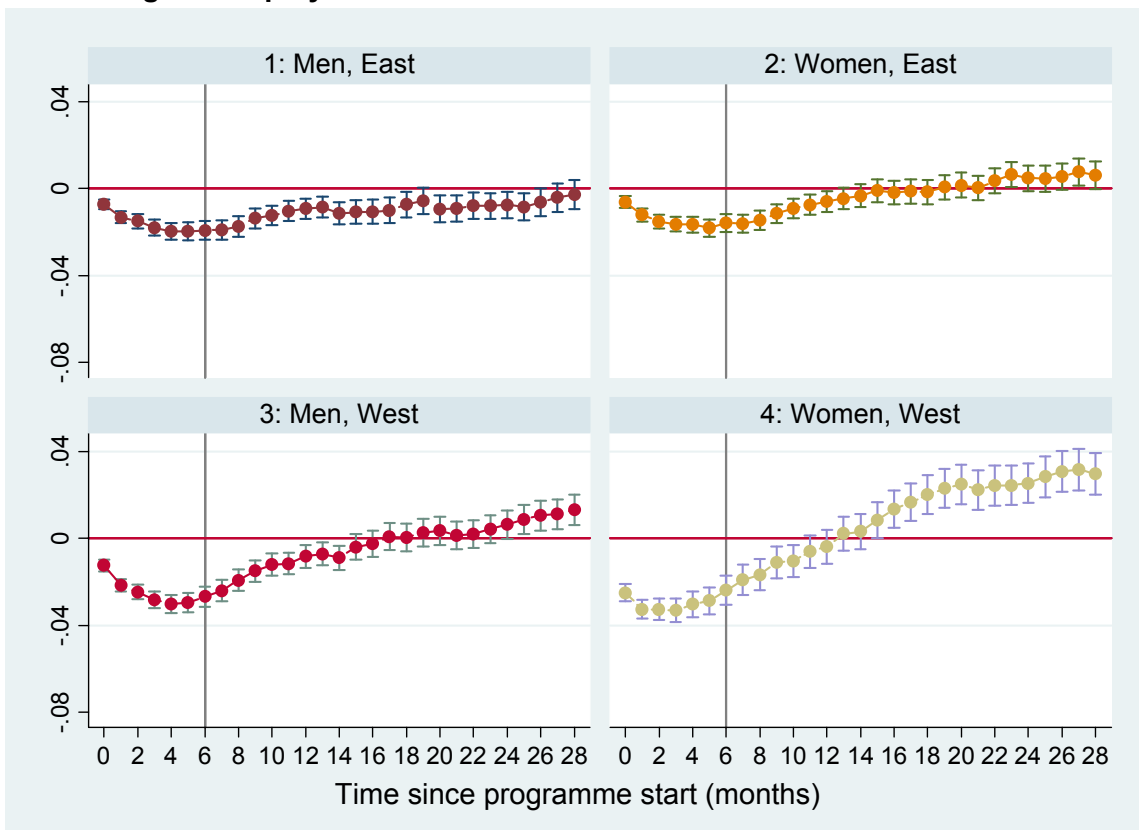


Figure 3
ATT on no UB II receipt

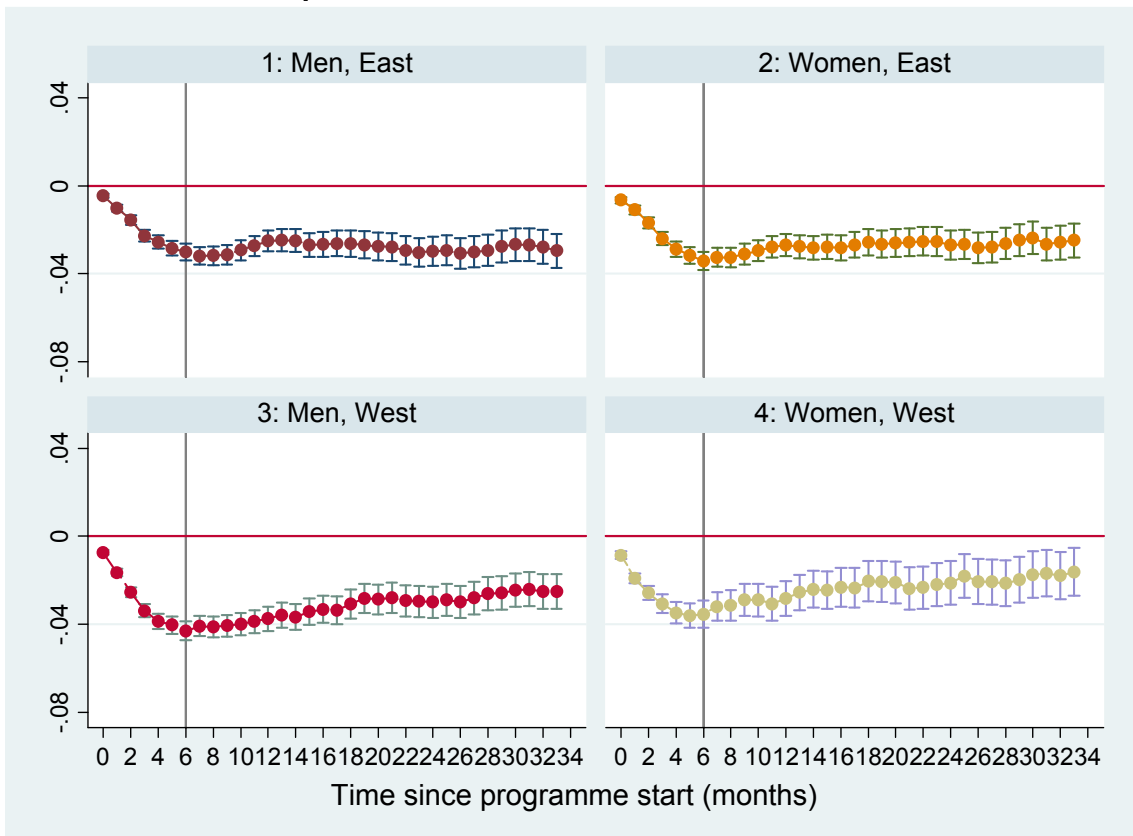


Figure 4
ATT on ALMP participation

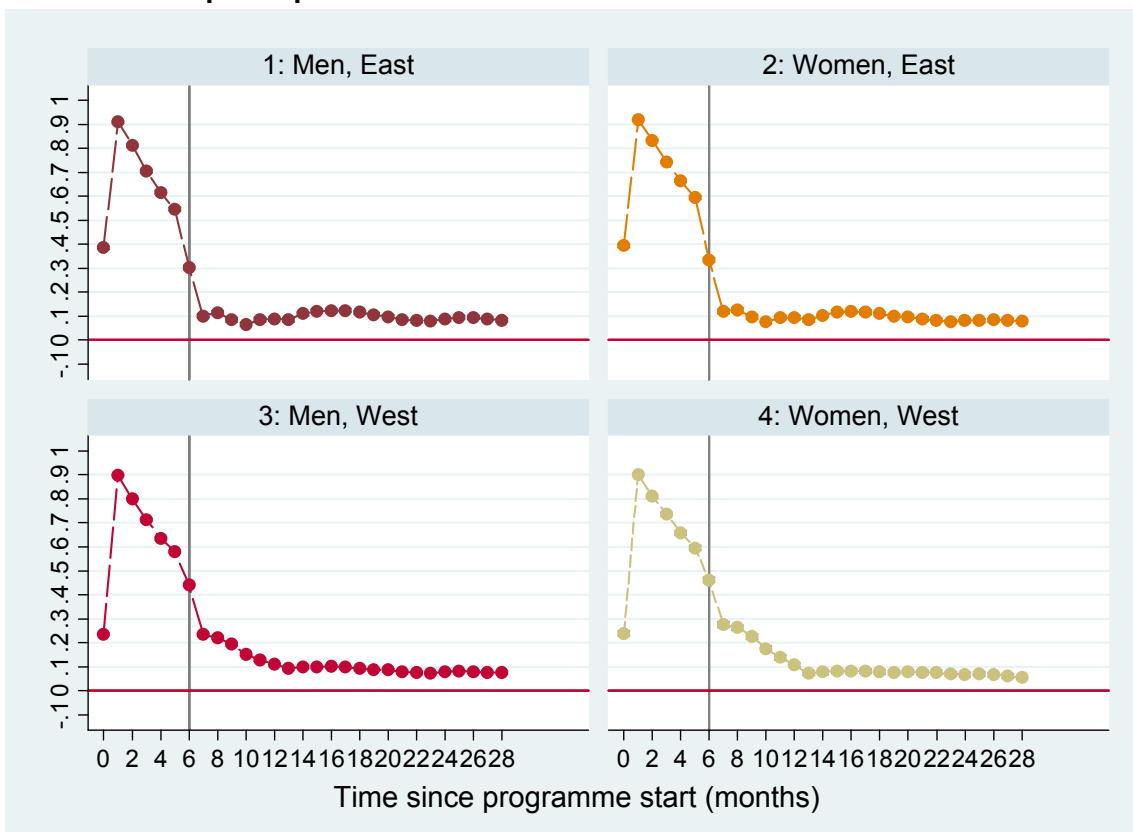


Figure 5
ATT on One-Euro-Job participation

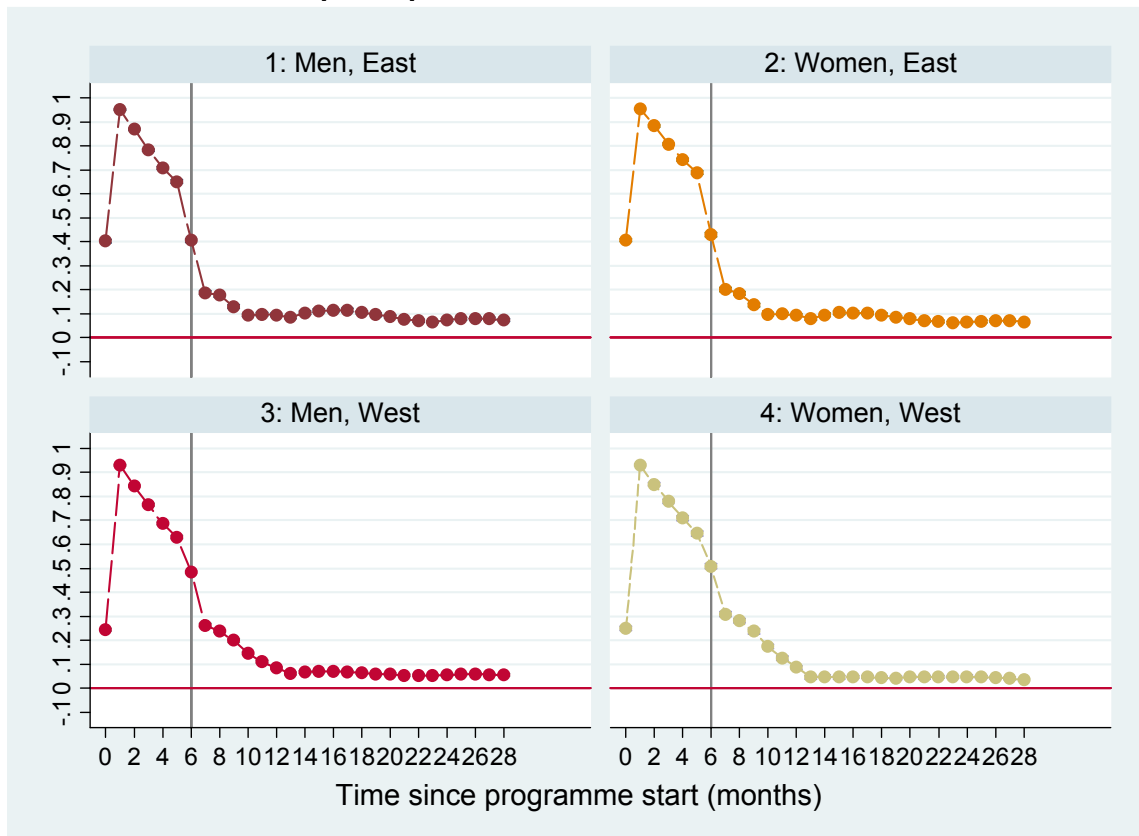


Figure 6
ATT on contributory employment including subsidized employment

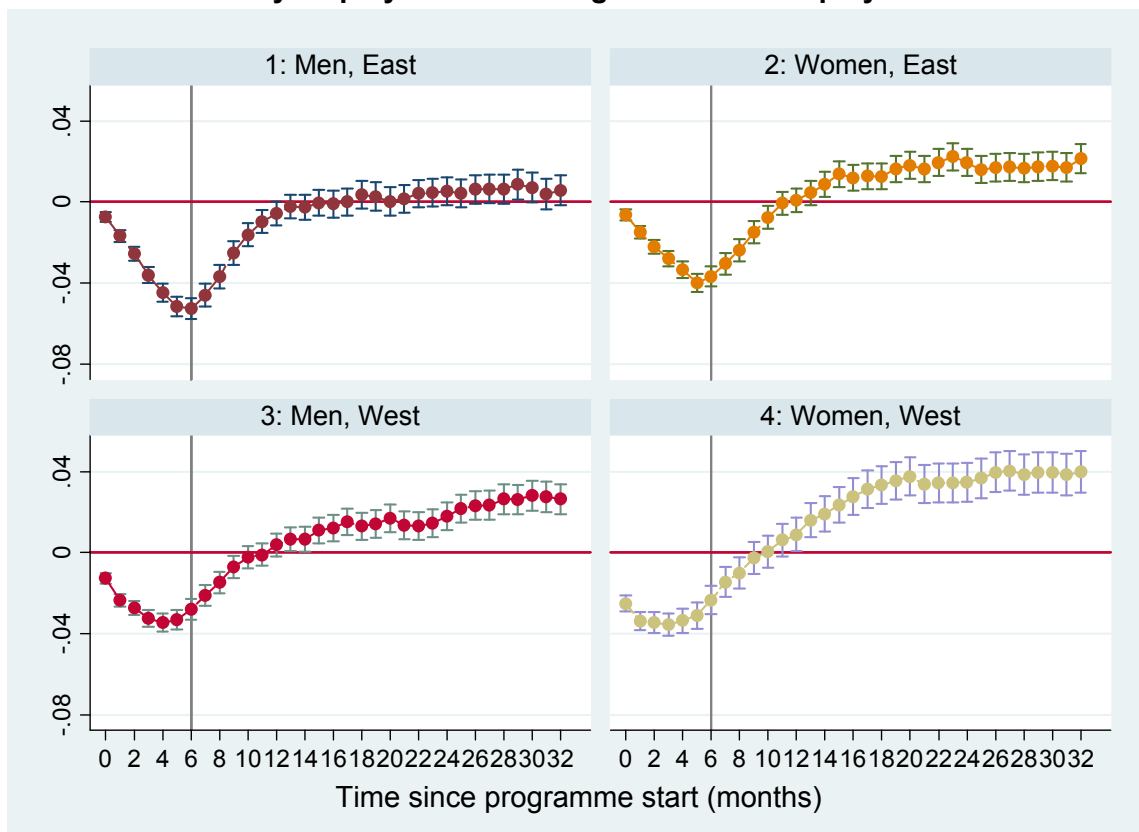


Figure 7
ATT on regular employment compared to waiting by planned duration

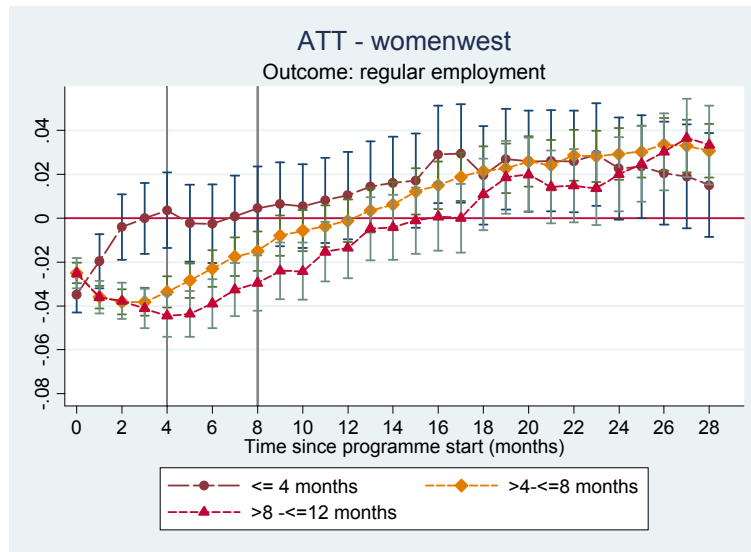
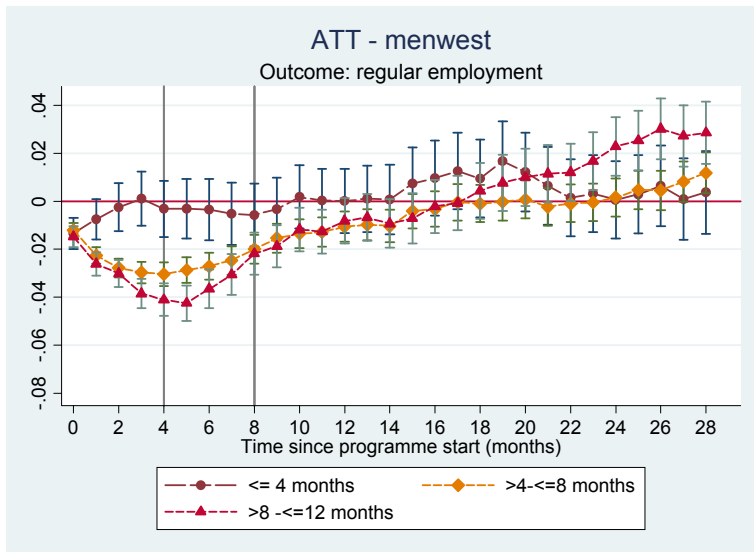
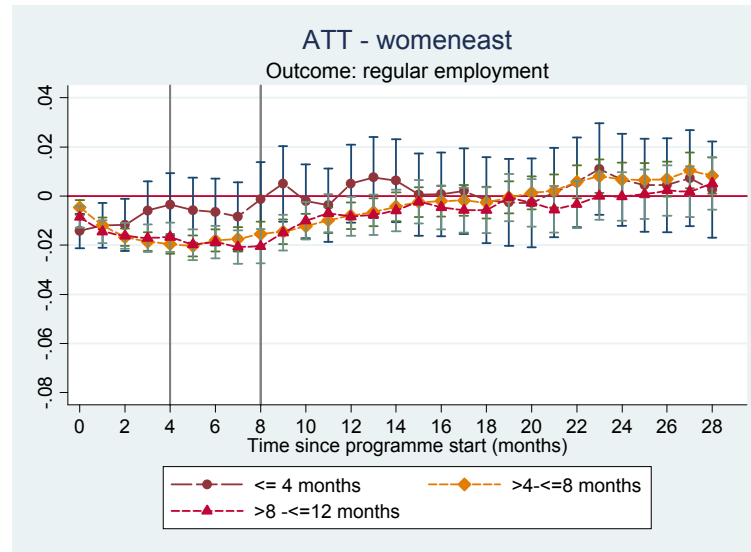
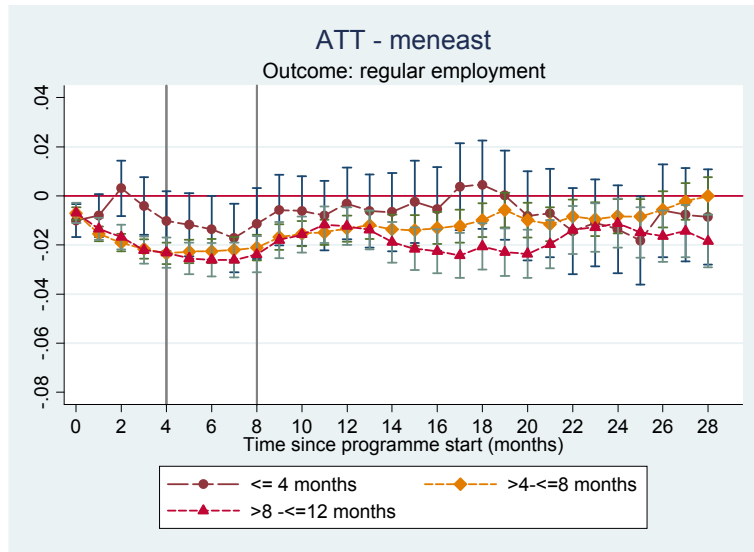
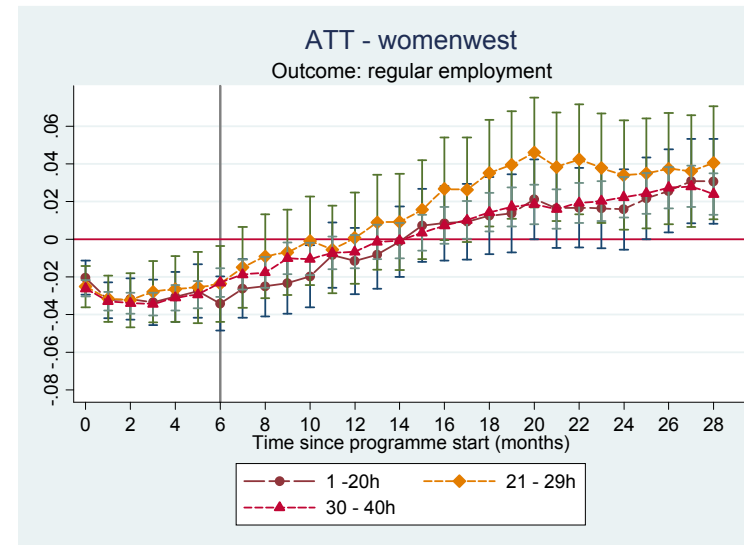
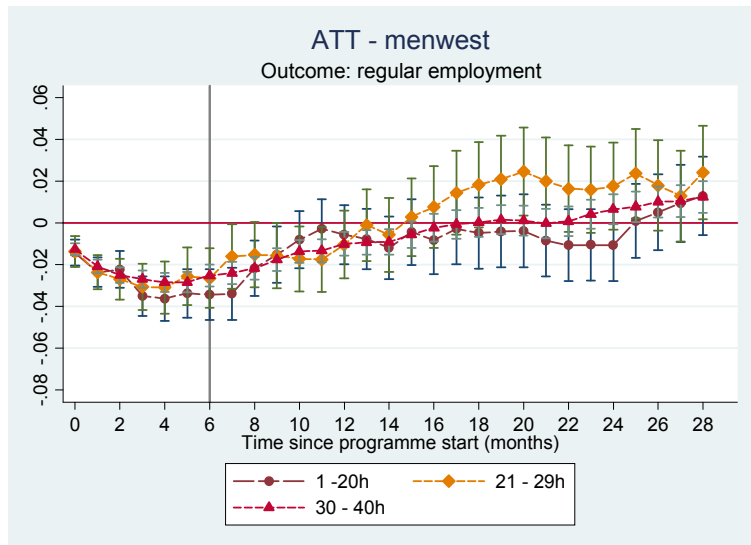
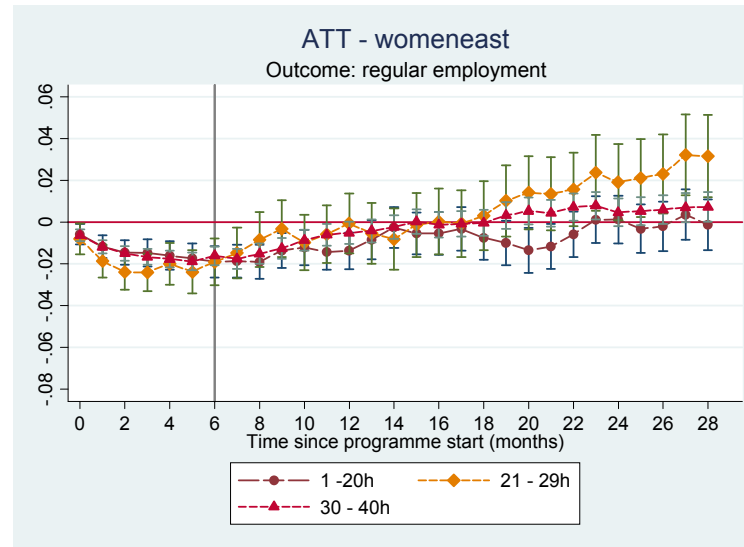
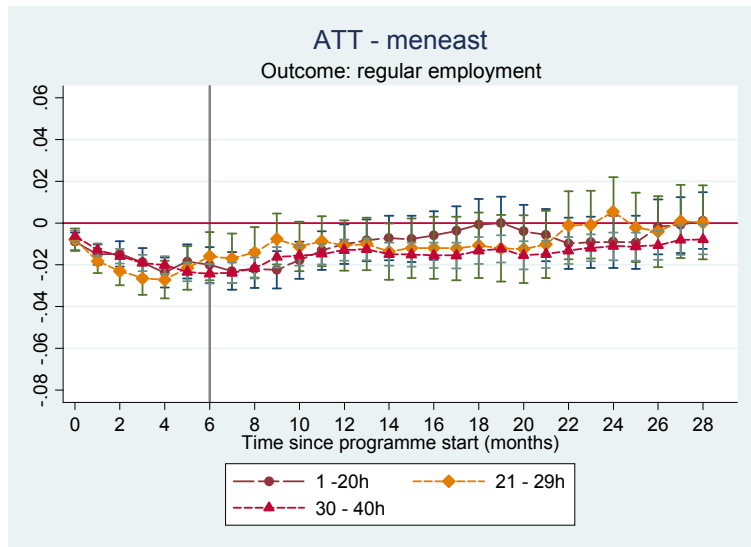


Figure 8
ATT on regular employment compared to waiting by working hours



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