

ACTIVE LABOUR MARKET POLICY IN EAST GERMANY:

WAITING FOR THE ECONOMY TO TAKE OFF

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This version: January, 2009

Date this version has been printed: 20 January 2009

Abstract

We investigate the effects of the most important East German active labour market programmes on the labour market outcomes of their participants. The analysis is based on a large and informative individual database coming from administrative data sources. Using matching methods, we find that over a horizon of 2.5 years after programme start the programmes fail to increase the employment chances of their participants in the regular labour market. However, the programmes may have other effects for their participants that may be considered important in the especially difficult situation experienced in the East German labour market.

Keywords: Matching estimation, causal effects, programme evaluation, panel data

JEL classification: J 68

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1 Introduction*

Over the last decade, Germany spent more than 7 billion EUR per year on active labour market policies (ALMPs) to combat the large and persistent unemployment problem in East Germany. This problem has its origin in the rapid transition from a centrally planned to a market oriented economy after German Reunification in 1990. In this paper, we investigate the differential effects of the most important parts of the East German ALMPs - various forms of training and subsidised non-market jobs - on the labour market outcomes of their participants.

Although German Reunification happened not too long ago, there is already a considerable literature on the effects of these programmes in East Germany, with mixed evidence though. One reason is that over time the data quality of the studies increased considerably. The earlier studies for East Germany use survey data. These data are rather limited with respect to the length of the observation period, sample size and the availability of sufficiently detailed information to account for selectivity and programme heterogeneity.¹ Most of these studies find negative or insignificant short- to medium-term employment effects (e.g. Pannenberg, 1995; Hübler, 1998; Hujer and Wellner, 2000; Kraus, Puhani and Steiner, 2000), but there are also studies that obtain positive effects for some programmes (e.g. Pannenberg and Helberger, 1997; Prey, 1999, Eichler and Lechner, 2002). The lack of robustness is due to the sensitivity

* The first author has further affiliations with ZEW, Mannheim, CEPR, London, IZA, Bonn, and PSI, London. Financial support from the Institut für Arbeitsmarkt- und Berufsforschung (IAB), Nuremberg, (project 6-531.1a) is gratefully acknowledged. In the early stages of this project, we collaborated with Bernd Fitzenberger and his team at the Goethe-University of Frankfurt to construct the database. We are grateful to Stefan Bender (IAB) for his continuing support to improve the quality of the data. The interested reader will find additional background material for this paper in an internet appendix on our website www.siaw.unisg.ch/lechner/lw_fbw_ost.

¹ Pannenberg (1995), Steiner and Kraus (1995), Pannenberg and Helberger (1997), Fitzenberger and Prey (1998, 2000), Hübler (1997, 1998), Staat (1997), Kraus, Puhani and Steiner (1999, 2000), Lechner (1999, 2000), Prey (1999), Hujer and Wellner (2000), Eichler and Lechner (2002), Bergemann, Fitzenberger and Speckesser (2007), Bergemann (2006). These studies use the German Socioeconomic Panel or the Labour Market Monitor East or for Saxony-Anhalt (see the survey by Wunsch, 2005).

of the results to different parametric assumptions, small sample sizes, and the inability to measure medium or even long-run effects, as well as problems in appropriately defining programme and outcome variables.

The next group of papers uses new administrative data explicitly developed for the evaluation of training programmes. These data are used by Speckesser (2004), Fitzenberger and Speckesser (2007), Fitzenberger and Völter (2007) and Lechner, Miquel, and Wunsch (2007) who analyse different types of training programmes conducted in the early years after unification (1993-1994). They apply semi-parametric matching techniques and measure outcomes up to 4-8 years after programme start. All studies find negative employment effects of the programmes in the short run whose occurrence is directly related to the programmes' duration (so-called lock-in effects). For the medium to long run, the studies report positive and significant employment effects for the majority of the programmes.

However, there are several problems with that specific data set. Besides the lack of information on other programmes, sample sizes for the training programmes as well as detailed information on the specific type of training is limited. Moreover, the measures for the short to medium-run labour market outcomes are problematic. The data do not allow distinguishing between unsubsidised employment in the regular labour market and subsidised employment, such as non-market jobs in employment programmes, which are, however, an important part of the active labour market policy in East Germany.

The third generation of data used to evaluate active labour market policies in East Germany comes from the so-called 'integrated employment biographies (IEB)' data base of the Institute for Employment Research (IAB). These data are used in this paper as well. Compared to the previous administrative data available for East Germany, the IEB cover a larger sample, contain much more detailed programme and outcome information, and improve substantially the information about the selection process. Due to the latter, all papers using these data so far

are based on a selection on observables strategy to identify the causal effects of the programmes, and almost all employ some sort of semi-parametric matching estimator. The general disadvantage of this database, which covers programmes and outcomes from 2000 to mid 2005 in its most recent version, is that only short to medium-term outcomes are available. This limited time horizon is the price to pay when interest is in recent programmes. For example in our study, which is based on matching estimation as well, we consider programme participation between 2000 and 2002. Thus, we observe outcomes for all participants only up to 2.5 years.² However, as shown by Lechner, Miquel, and Wunsch (2006, 2007), after 30 months we can already get a reasonably accurate idea about the magnitude of possible long-term effects, at least for the shorter programmes. All papers analysing recent programmes have (and have to have) a similarly short or even shorter time horizon.

There are two groups of papers based on this new database so far, depending whether they evaluate training programmes or employment programmes. Concerning the training programmes, Hujer, Thomsen, and Zeiss (2006) analyse the effects of programmes conducted in the period 2000-2002 on the transition rate into regular employment. Methodologically, this paper is an exception, because it is not based on matching estimation. Instead, the authors estimate a multivariate mixed proportional hazard rate model. Because of the short time horizon available to observe outcomes in their study, the negative lock-in effects drive their results. Based on similar data, Biewen, Fitzenberger, Osikominu, and Waller (2006) analyse the effects of three broad groups of training programmes for participants in 2000- 2001 using matching methods. The authors conclude that about 20 months after the start of the

² Going beyond that time horizon would imply dropping late starts. Thus, the differences after 2.5 years compared to the earlier results would reflect differences in the composition of participants, content of the programmes as well as effects that need longer time to materialise. Since such a composite effect is difficult to interpret as a policy parameter, we refrain from presenting these numbers.

programmes, there are no or only very small effects that are hard to pin down precisely.³ Using a different version of the IEB, several papers by Caliendo, Hujer, and Thomson (2004, 2006, 2008a, 2008b) analyse the effects of employment programmes by comparing participants in February 2000 with eligible nonparticipants in the same month. Based on matching methods they conclude that after 3 years the programmes did not improve the employment chances of their participants.

Our paper contributes to a better understanding of the individual effects of East German labour market programmes in several dimensions. First, compared to the studies looking at post-unification training programmes, we have much larger samples and better information on the type of programmes, on individual labour market outcomes, and on the selection process into the programmes. Thus, we obtain considerably more comprehensive and more robust results as before. Second, we account for programme heterogeneity in a much more detailed way than the existing studies. Third, this is the first study looking jointly at the effects of a large variety of training programmes as well as two important employment programmes, allowing interesting comparisons across the programme types. We do not only compare the programmes to some nonparticipation state, but also compare them with each other. The latter gives interesting insights into the effectiveness of the caseworkers' allocation of different participants to different programmes. Fourth, we find interesting effect heterogeneity with respect to participant characteristics. For example, the effects are much worse for individuals who have good pre-programme labour market prospects. Finally and most importantly compared to the existing studies, we investigate different dimensions of the potential effects of the programmes. This is of particular importance for East Germany with its particularly

³ There is also the report for the government about the recent labour market reform in 2004 as suggested by the so-called Hartz-Kommission (see Schneider, Brenke, Kaiser, Steinwede, Jesske, Uhlendorff, 2006), which contains some hints about possible effects of training in East Germany. Those hints clearly provide no robust evidence for positive effects.

difficult labour market situation, where other objectives like preventing or reducing human capital depreciation, keeping the unemployed attached to the labour market or providing social contacts and organised daily routines by 'keeping them busy' in subsidised employment or training programmes without the direct prospect of finding a regular job have received non-negligible weight. We not only look at traditional outcomes like unsubsidised employment and unemployment, but also on total employment, future programme participation, quality and stability of employment, earnings from employment and total earnings. Moreover, we assess the costs associated with programme participation in terms of benefit payments.

Applying a semi-parametric matching approach and concentrating on programmes that start between 2000 and 2002, we find that over a horizon of 2.5 years the programmes fail to increase the employment chances of their participants in the regular labour market. Some programmes actually harm participants, while other programmes did at least not increase the chances of their participants. There is so far no sign that there will be any positive long-term effects. Moreover, programme participation leads to increased unemployment, more programme participation, and increased benefit receipt implying considerable additional costs for the unemployment insurance system. However, the programmes may have other effects, like keeping their participants occupied, that may, or may not be worth having in the special situation of the East German economy.

We also find that the selection process into the different programme types was not optimal, because a different allocation of participants among the programmes would have improved employment and reduced benefit payments. Furthermore, too many people with intact labour market chances end up in programmes. Those people fared worst among all participants.

From the analysis, it appears clear that in the very depressed labour market of East Germany, the recent active labour market policy did not help to reintegrate the unemployed into the unsubsidised part of the labour market. If one pursues the view that active labour market

policies are supposed to cure some malfunctioning of the labour market, then one is led to the conclusion that with such amount of malfunctioning as seen in East Germany, this cure is not strong enough. It appears instead, that other more substantial changes may be required that attack the roots of the problems, and not only its symptoms. However, these findings do not necessarily imply that the programmes had no positive effects on their participants, it just implies that those effects are probably in a different sphere (receiving earnings from work instead of benefits, having a daily routine, etc.) than earnings and employment in the regular labour market.

The remainder of the paper is organised as follows: The next section briefly reviews the economic and institutional environment of the East German labour market. Section 3 describes the data. Section 4 outlines our approach to identification and estimation of the programme effects. Section 5 contains the results from the econometric matching estimations and discusses the sensitivity and heterogeneity checks conducted. The last section draws policy conclusions. Appendix A gives more information on the data used. Appendix B contains some more details on the econometrics applied, while Appendix C contains additional results not presented in the main body of the text. Finally, an appendix that is available in the internet contains more detailed background material concerning estimation, data, and results.

2 Economic conditions and labour market policy in East Germany

2.1 Economic development since German Unification

After the near-collapse of the East German economy following German Unification (by December 1990, production of goods had dropped to 46% of its 1989 level; Akerlof et al., 1991), the East German work force had declined by almost 3 million people in 1991 (BA, 2001). A substantial part of these people was directly absorbed by active labour market programmes to the effect that the official unemployment rate - which does not include participants in ALMP

– is not skyrocketing. Furthermore, many older people left the labour force encouraged by generous early retirement schemes. In spite of this, registered unemployment rose rapidly to a rate of more than 10 per cent in 1991 (BA, 1992). As can be seen from Table 1, the East German economy has been recovering only slowly since then. Unemployment has risen steadily and has become very persistent with a fraction of long-term unemployed of 40% in 2005. The fraction of young people and persons with low education or health problems among the unemployed has also increased steadily while female unemployment is declining because more women leave the labour force.

Table 1: GDP growth and unemployment since 1993

	1993	1995	1997	1999	2001	2003	2005
GDP growth	12.6	6.3	1.9	2.8	1.1	1.0	-0.1
Unemployment rate	15	15	19	19	19	20	19
Thereof:							
Women	65	64	58	54	51	49	47
Non German	3	4	4	4	5	5	6
No professional degree	23	21	21	24	24	23	26
Age < 25	12	11	12	12	13	12	14
Age ≥ 55	8	16	20	21	15	10	12
Unemployed for more than 1 year	31	29	30	32	35	43	40
Health problems	10	14	16	19	21	21	24

Note: Entries are in percent.

Sources: Statistische Ämter der Länder (2006), BA (1992-2006).

2.2 Unemployment insurance in Germany

In Germany, unemployment insurance (UI) is compulsory for all employees with more than a minor employment including apprentices in vocational training.⁴ German UI does not cover self-employed. Persons who have contributed to the UI for at least 12 months within the three years preceding an unemployment spell are eligible for unemployment benefits (UB). The minimum UB entitlement is six months. In the period we consider, the maximum claim increases stepwise with the total duration of the contributions in the seven years before becoming unemployed, and age, up to a maximum of 32 months at age 54 or above with previous

⁴ However, civil servants (Beamte), judges, professional soldiers, clergymen and some other groups of persons are exempted from contributions. For further details on the German UI and ALMP, see the comprehensive survey by Wunsch (2005).

contributions of at least 64 months.⁵ Actual payment of UB for eligible unemployed is conditional on active job search, regular show-up at the public employment service (PES), and participation in ALMP measures. Since 1994, the replacement rate is 67% of previous average net earnings from insured employment with dependent children, and 60% without.

Until 2005, unemployed became eligible for unemployment assistance (UA) after exhaustion of UB. In contrast to UB, UA was means tested and potentially indefinite. However, like UB, UA was proportional to previous earnings but with lower replacement rates than UB (57% / 53% with / without dependent children, respectively). Unemployed who were ineligible for UB and UA could receive social assistance, which was a fixed monthly payment unrelated to previous earnings, means tested and administered by local authorities.

2.3 East German active labour market policy

Directly after unification, short-time work, which is a reduction in work hours combined with a subsidy from the unemployment insurance system to compensate the resulting earnings loss, subsidised non-market jobs (so-called job creation schemes, JCS), and further vocational training (FVT) was used on a rather massive scale.

In recent years, however, the focus shifted towards the internationally more common minor adjustments of skills in short so-called training measures (which are much cheaper than FVT). Furthermore, direct temporary wage subsidies as well as the support of self-employment increased at the expense of subsidised non-market jobs (see Table 2). One important feature of German ALMP is the large heterogeneity of training courses. Course contents, the amount of human capital added and planned durations vary considerably, particularly among FVT courses. With our data (see Section 3), we are able to account for heterogeneity in training measures and FVT in a detailed way.

⁵ For example, a 40-year-old unemployed with at least two years of insured employment has a maximum claim of 12 months.

Table 2: The most important instruments of ALMP in East Germany (1998-2005)

	1998	1999	2000	2001	2002	2003	2004	2005 ^c
Expenditures in million EUR								
Total expenditure on ALMP	7920	8964	8620	8360	8265	7326	5042	2454
Share in %								
Training measures (TM)	1	1	2	2	2	3	4	2
Further vocational training (FVT)	37	33	34	36	35	27	25	16
Short-time work	1	1	1	1	1	1	2	3
Job creation schemes (JCS)	35	32	31	25	22	18	19	7
Structural adjustment measures (SAM)	18	17	14	9	8	7	7	6
Temporary wage subsidies	2	3	5	7	10	12	12	8
Support of self-employment	2	2	3	3	3	6	14	36
Other	4	10	11	17	19	26	17	21
Participation in 1000								
Training measures (TM) ^a	NA	167	191	227	332	376	400	287
Further vocational training (FVT) ^a	236	183	214	188	183	92	61	40
Short-time work ^b	34	27	24	27	45	35	29	25
Job creation schemes (JCS) ^b	151	168	153	123	92	70	65	36
Structural adjustment measures (SAM) ^b	162	180	98	67	58	40	28	12
Temporary wage subsidies ^b	NA	65	91	99	116	107	90	29
Support of self-employment ^b	NA	32	30	31	34	72	68	105

Note: NA: Not available. ^a Entries in 1000 persons. ^b Yearly average of stock in 1000 persons. ^c The numbers for 2005 are not comparable due to a complete change in legislation and statistics.

Source: BA (1992-2006).

Table 3 summarises the programme types we evaluate in our empirical analyses. Besides seven types of training courses, we evaluate the most important forms of subsidised non-market jobs. We do not include temporary wage subsidies and support of self-employment though, because our identification strategy (see Section 4) might not be valid for these programmes. Short-time work is not observable in our data.

Short combined measures (SCM) are a series of very short training courses aiming at removing specific minor skill deficits. *Jobseeker assessment* (JSA) courses have the main objective of assessing a jobseeker's availability, willingness, and ability for active job search or specific kinds of jobs or programmes, but they also provide basic job search assistance. *Short training* (ST) courses provide minor adjustments of skills. All three types of programmes belong to the category of so-called training measures (TM) and have durations of no more than three months with mean planned durations of below two months.

Table 3: Descriptions of the programmes evaluated

Programme type (acronym)	Description	Mean planned duration (days)
Short combined measures (SCM)	Acquisition of specific knowledge and skills	57
Jobseeker assessment (JSA)	Assessment of jobseekers ability and willingness to search for job and to work, basic job search assistance	45
Short training (ST)	Minor adjustment of skills	48
Job related training (JRT)	Combined off-the-job and on-the-job training in a specific field of profession	172
General further training ≤ 9 months (GT-9M)	General update, adjustment and extension of knowledge and skills; mainly off the job, planned duration ≤ 9 months	174
General further training > 9 months (GT-9M+)	General update, adjustment and extension of knowledge and skills; mainly off the job, planned duration > 9 months	349
Degree course (DC)	Vocational training that awards a formal professional degree and that corresponds to regular vocational training in the German apprenticeship system	694
Job creation scheme (JCS)	Subsidised non-market jobs which are in the interest of the public	275
Structural adjustment measure (SAM)	Subsidised non-market jobs in economically weak regions	331

Note: Calculations of the mean planned durations are based on our evaluation sample (see Section 3.3).

Job related training (JRT) combines off-the-job training with a substantial amount of on-the-job training in a specific field of profession, where the latter often takes place in a simulated work environment rather than a regular firm. The mean planned duration is about six months.

General training (GT) subsumes the classical, mainly off-the-job, further vocational training courses which provide a general update, adjustment, and extension of knowledge and skills. Planned durations range from only a few months to up to two years. *Degree courses (DC)* provide a usually two-year training which is equivalent to an apprenticeship in the German apprenticeship system. It awards an officially recognised vocational degree if completed successfully. JRT, GT, and DC belong to the category of further vocational training (FVT).

Job creation schemes (JCS) and *structural adjustment measures (SAM)* are subsidised jobs, which are outside of and should not compete with the regular labour market. JCS are targeted at unemployed with particularly bad employment prospects like the elderly or the long-term unemployed. SAM aim at smoothing the effects of large job losses in a region by absorbing the unemployed in subsidised employment. In both programmes, participants hold these jobs usually for about one year.

2.4 Interactions between programme participation and UI payments

One important feature of German labour market policy has always been that (most) programme participations extend the period in which unemployment benefits (UB) can potentially be drawn. The extension occurs either directly by explicitly counting programme participation in the same way as insured employment towards the acquisition of UB claims. Or it occurs indirectly by receiving a different form of benefit (so-called maintenance allowance, MA, during participation in FVT) of the same amount as UB (or UA) during participation without or only less than proportionately reducing the UB claim at programme start. Table 4 summarises the respective rules.

Table 4: Programme participation and accumulation of benefits

Year	Programme	Rules
Until 1997	FVT	Receipt of MA if eligible; UB claim stays constant; counts in the same way as insured employment
	JCS	Regular salary, no benefits; counts as insured employment
1998-2002	TM	Receipt of UB or UA if eligible; UB claim reduced by the programme duration
	FVT	Receipt of MA if eligible; UB claim stays constant; entitlement qualification period extended by up to 2 years
	JCS, SAM	Regular salary, no benefits; counts as insured employment
2003-2004	TM	Receipt of UB or UA if eligible; UB claim reduced by the programme duration
	FVT	Receipt of MA if eligible; UB claim reduced by half of the programme duration; entitlement qualification period extended by up to 2 years
	JCS, SAM	Regular salary, no benefits; no longer counts as insured employment
Since 2005	TM	Receipt of UB or UA if eligible; UB claim reduced by the programme duration
	FVT	Receipt of UB or UA if eligible; UB claim reduced by half of the programme duration
	JCS, SAM	Regular salary, no benefits; does not count as insured employment
Note:		TM and SAM have been introduced in 1998. The regular entitlement qualification period are the three years before the beginning of an unemployment spell in which the duration of insured employment is counted for the acquisition of an UB claim. At least 12 months of insured employment within this period are needed to acquire a new UB claim and the total claim increases with the duration of insured employment in the seven years before the beginning of an unemployment spell.

Since 1998, all major reforms of German labour market policy have reduced the possibilities to renew or extent UB claims by programme participation as legislators have increasingly become aware of the adverse effects these rules have on search intensity and the budget of the public employment agency (PES).

3 Data and definition of the evaluation sample

3.1 The data

We use a new administrative database that has been built up by the Institute for Employment Research (IAB). The database is a 2% random sample from all individuals who have been subject to German social insurance at least once since 1990. It combines spell information from four different administrative sources: social insurance records on employment, programme participation, benefit payment and job search. Table A.1 in Appendix A summarises the main features of these data sources.

Besides being very recent, the database is very rich in terms of covariate information and observed pre-programme employment histories (at least 10 years) to control for selectivity in programme participation (see detailed discussion in Section 4.1). Moreover, it covers participation in all major German active labour market programmes for the unemployed from 2000 to mid 2005, and the information about programmes is very detailed so that it is possible to account for programme heterogeneity in a uniquely detailed way.

Nevertheless, the database also has several drawbacks that may be important for the interpretation of our results. Firstly, information on direct programme costs is not available in the data. It is therefore not possible to consider the actual net effects of programmes. Secondly, prior to 2000 there is no explicit information on participation in ALMP except for benefit payment during participation in training. In particular, it is not possible to distinguish subsidised from non-subsidised employment. Thirdly, the common observation period after programme start is relatively short (only 2.5 years) since we are interested in relatively recent programmes conducted 2000-2002. Because of the rather long durations of some programmes (see Table 1), Lechner, Miquel, and Wunsch (2006, 2007) show that the ability to measure long-run effects is crucial for the evaluation of German ALMPs. However, their results also

imply that after 30 months we can already get a reasonable idea about the magnitude of possible long-term effects, at least for the shorter programmes.⁶

3.2 Definition of our evaluation sample and programme participation

Our sample consists of the inflow into unemployment from insured employment or out of labour force between January 2000 and the first half of December 2002. If there are multiple entries into unemployment of a person in this period, we consider the first one as the sample inflow date. When choosing the appropriate subpopulation from this inflow sample, we aim at having a homogenous group of people that covers the prime age part of the East German⁷ population that is eligible for participation in the programmes under consideration. Therefore, we require that all individuals were employed⁸ at least once before programme participation and that they received unemployment benefits (UB) or assistance (UA) in the month before the programme start (as well as in the month of potential programme start for nonparticipants).⁹ According to German legislation, this is also the main target group of German ALMPs. To avoid most influences coming from retirement, early retirement, and primary education, we also impose an age restriction (25-49 years). Concentrating on the main body of the active labour force, we exclude unemployed who were trainees, home workers, apprentices, or whose intensity of the last employment before programme participation was below half of the usual full-time working hours.

⁶ The studies of Gerfin and Lechner (2002); Frölich, Lechner, and Steiger (2003); Lechner and Smith (2007) and Sianesi (2004) faced similar problems.

⁷ We exclude Berlin.

⁸ 'Employed' means that we observe the person at least once in insured employment in the data.

⁹ In fact, receipt of UB or UA directly before entering a programme is not sufficient to ensure eligibility. Individuals must also have a formal professional degree or at least three years of work experience. Thus by also requiring individuals to be employed at least once before the programme, the remaining group of participants and nonparticipants is most likely to be eligible.

Note that drawing this subpopulation requires the use of variables measured relatively to the start date of the programme, which is only available for participants. Moreover, some variables potentially influencing both selection into programmes and outcomes should be measured relatively to the start of the programme. In this paper, we follow one of the approaches suggested by Lechner (1999, 2002b) to simulate start dates for nonparticipants. We regress the log start date of participants on a set of time invariant personal and regional characteristics and use the estimated coefficients plus a draw in the residual distribution to predict start dates for nonparticipants. However, to minimise the effect of simulating start dates for nonparticipants we measure all variables except for elapsed unemployment duration until participation at the beginning of the unemployment spell in which (potential) treatment takes place. Thus, what the simulation does is finding a control observation, that is still eligible and, hence, comparable at the assigned start date, which is a kind of first matching step with respect to elapsed unemployment duration.¹⁰

We define *participants* as those unemployed who participate at least once in a programme in the three years from the inflow into our sample. Accordingly, *nonparticipants* are all persons who do not enter a programme in this period. However, since we observe outcomes only up to mid 2005, we only evaluate the first participation of a person in a programme that occurs after the date of the inflow into the sample and before 2003. Since these choices may affect our results, we subject them to an extensive sensitivity analysis (see Section 5.5).¹¹

¹⁰ By deleting non-treated observations that do not fulfil the eligibility condition, we cannot get a consistent estimate of the average treatment effect for the population, but the average treatment effect on the treated, which is the parameter we are interested in, can still be recovered from the data because none of the programme participants is removed by this procedure.

¹¹ We do not follow the approach employed by Biewen, Fitzenberger, Osikominu, and Waller (2006) who apply matching to different samples stratified by unemployment duration for two reasons. First, our sample sizes would be too small without further aggregation of the programmes so that we would not be able to account for program heterogeneity in the way we would like to do. Second, since not all unemployed participate in a programme at some point in time (see Table 6) the 'joining-versus-waiting' parameter is not of large policy

3.3 Selected descriptive statistics

The upper part of Table 5 presents descriptive statistics for selected variables. The numbers indicate that entry into the programmes is highly selective (for a full list of variables and statistics, see internet appendix IA.1). Women seem to be concentrated in SCM, ST, and GT-9M+ while GT-9M, JCS, and SAM exhibit a male bias. DC seems to be a device to provide younger and untrained unemployed with a first professional degree. JCS attracts a larger share of slightly older unemployed, unemployed with health problems, low earnings, and long unemployment durations. It often takes place in the regions with the highest unemployment rates. The latter is also true for SAM and JRT. Participants in JRT seem to have, however, above average previous earnings. Nonparticipants differ from participants because of their lower current unemployment duration and their rather high fractions of untrained unemployed and unemployed with health problems.

To get a better understanding of how selection into different programmes works with respect to employment prospects, we predict the employment chances the different groups of participants would have had without a programme conditional on a rich set of covariates. This prediction is based on a probit estimation of the employment chances of nonparticipants at the end of the observation window. As dependent variable, we take employment that generates at least 90% of the earnings of the previous job measured in the last period of our observation window. As explanatory variables, we use all variables that are important in the selection models for the different programme participations versus nonparticipation. This includes personal characteristics, variables that summarise individual pre-programme employment histories and regional characteristics.

interest and difficult to interpret because over the short horizon it basically measures the difference between different overlapping lock-in effects.

Table 5: Means and shares (in %) of selected variables

Treatment	NP	SCM	JSA	ST	JRT	GT-9M	GT-9M+	DC	JCS	SAM	
Observations	4024	429	1066	549	313	605	533	176	587	463	
Personal characteristics											
Age (years)	38	38	37	37	37	38	38	34	40	38	
Woman	38	45	40	44	36	29	43	40	34	28	
No professional degree	11	10	10	7	8	7	6	14	10	9	
Completed apprenticeship	85	81	88	86	89	88	81	82	87	89	
University / polytechnic college degree	4	8	2	7	3	4	13	5	2	2	
Health problems	14	11	11	9	10	9	9	11	19	7	
Programme duration											
Planned duration in days	-	57	45	48	172	174	349	694	275	331	
Actual duration in days	-	55	40	49	165	167	328	657	269	309	
Characteristics of desired job											
Unskilled	30	28	27	22	26	21	18	38	31	24	
Skilled	66	64	71	71	72	74	67	59	66	73	
High-skilled	4	8	3	7	2	5	15	4	2	2	
No work experience required	8	6	8	7	6	5	5	11	7	4	
Earnings of last job											
Monthly earnings (EUR)	1386	1400	1364	1447	1698	1445	1594	138	2	1323	1343
Remaining unemployment benefit claim											
No claim	50	57	45	50	38	27	26	40	65	34	
Claim (days)	101	70	106	88	140	157	162	105	59	116	
Employment history over the 10 years before programme start											
Duration of current unemployment spell (months)	5	7	7	7	7	6	7	8	10	7	
Fraction employed	66	66	65	69	66	70	70	64	58	68	
Fraction unemployed	18	18	17	15	18	15	13	15	25	16	
Fraction out of labour force	11	10	11	10	10	9	10	15	9	9	
Regional information											
Local unemployment rate ≤ 15%	8	9	8	9	6	10	8	10	4	6	
Local unemployment rate > 25%	11	7	10	8	13	12	8	11	14	13	
No programme employment index**											
Mean	27	27	26	27	29	32	30	25	17	29	
Median	19	16	20	19	21	27	26	18	9	24	
33%-Quantile	10	7	10	10	12	15	14	10	3	16	
67%-Quantile	34	33	31	31	35	41	38	27	15	34	
Correlation with participation probability***		-10*	-4*	-2*	-2	-9*	-9*	-2*	-22*	-5*	

Note: If not stated otherwise, entries are in percent. All variables except the duration of the current unemployment spell are measured at or relative to the beginning of the unemployment spell in which (simulated) programme start takes place. The duration of the current unemployment spell is measured at (simulated) programme start. *Correlation is significant on the 5% level. ** Predicted probabilities from a probit estimation among nonparticipants. Dependent variable: Employed in unsubsidised employment with at least 90% of the earnings of the last job before programme start, measured in half-month 60 after programme start. *** Predicted probability to participate in the respective programme or not to participate at all. Correlation computed in the population.

In the lower part of Table 5, we present various statistics for the predicted employment probabilities from this estimation. It shows that by various measures JCS received by far the most difficult cases in terms of reemployment chances, as opposed to the similar programme

SAM whose participants appear to be very similar to the average, or even a bit better. The differences for the remaining groups are not that striking and there is a considerable heterogeneity within all programmes. Finally, the last row shows that the predicted nonparticipation employment chances are, as expected, negatively correlated with the predicted participation probabilities. However, given the official policies, these correlations are surprisingly small.

In Figure 1, we show how nonparticipants and programme participants differ in terms of (unsubsidised) employment rates before and after programme start, and *before* correcting for any selectivity. By construction of our sample, the employment rates are zero at and in the period directly before programme start. Nonparticipants have substantially higher employment rates in the 10 months before their simulated programme start than all the different groups of participants. Participants in JCS exhibit particularly low employment rates before programme start while all other participants face rather similar rates though the rates of participants in DC and SAM seem to fall somewhat more rapidly six months before programme start. After the (simulated) programme start, none of the groups reaches its pre-programme level. However, the employment rate of nonparticipants recovers quickly. For participants in the shortest programmes (SCM, JSA, and ST) there is also a steep ascent in the beginning but it becomes rather flat very early after programme start. For participants in both types of GT the ascent of the employment rate is somewhat delayed due to their longer durations but the development looks rather positive after completion of the programmes. The rates of participants in DC, JCS, and SAM recover only very slowly.

Figure 1: Rates of unsubsidised employment before and after programme start (unmatched sample)

figure1.eps

Note: Unsubsidised employment. Month zero is the (simulated) programme start. Negative values on the abscissa refer to months before programme start, positive values to the months after programme start. Grey vertical lines indicate the median duration of the programmes stated right to the line.

4 Identification and estimation

4.1 Conditional independence

We are interested in the average effects of the programme on the programme participants compared to participation in another specific programme or no participation at all. To identify these parameters we rely on the conditional independence assumption to solve the selection problem that arises from the fact that persons in the different treatments differ systematically in a way that might be related to the outcome variables of interest (see Section 3.3). The assumption states that if we can observe all factors that jointly influence outcomes in the comparison state and the participation decision, then - conditional on these factors - participation and the outcomes, which the participants would have obtained in the comparison state, are independent, and the effects of interest are identified (Rubin, 1974; Imbens, 2000; Lechner, 2001, 2002a, b).

Selection into programmes is determined by three main factors: eligibility, selection by caseworkers and self-selection by potential participants. Eligibility is ensured by the choice of our evaluation sample (see Section 3.2). Given eligibility, based on an assessment of the employment prospects and the specific deficits or needs of the unemployed the caseworker decides - usually in consultation with the potential participant – on programme participation. According to German legislation, caseworkers have to take into account the chances of the unemployed for completing a specific programme successfully, and the situation in the local labour market. The latter is particularly important in East Germany. Therefore, we merged rich regional information to our data that allows us to control for local labour market conditions in a detailed way.¹² These data contain information on the industrial, employment, population,

¹² In the data we have both the 181 labour market districts defined by the Federal Employment Agency (FEA) and the 446 counties. The former has been used to merge statistics from the FEA (e.g. local unemployment rate). The latter has been used to merge statistics from the Federal Statistical Office (e.g. industry structure, population, etc.).

and wealth composition of the region as well as migration streams, tax revenues and local unemployment rates. Individual variables in our data capturing information about employment prospects and chances for successful completion of a programme include age, educational attainment, family and health status, characteristics of the desired job as well as employment histories for at least 10 years before the programme. The latter include information on employment status, earnings, position in previous job, specific occupation, and industry.

From the point of view of the unemployed, his decision whether or not to participate in a programme is guided by considerations very similar to those of the caseworker, but there are also additional reasons for joining or not joining a programme. If, for example, the unemployed see no chance to find a job with or without a programme, they may prefer not to join a programme that reduces their leisure time. This again requires controlling for all factors that determine individual employment prospects and labour market conditions. Moreover, legislation provides rather strong incentives to participate. On the one hand, unemployed who refuse to join a programme risk suspension of their unemployment benefits. On the other hand, most programmes count towards acquisition of new unemployment benefit claims (see Table 2). Therefore, we include a variable that indicates the UB claim at the beginning of an unemployment spell.

The internet appendix, Table IA.1, contains a complete list of all variables that are available in the data. In contrast to administrative data previously available for Germany, we observe whether a jobseeker has health impairments or a disability affecting employability. We also observe a set of characteristics of the job the unemployed is looking for, the number of placement propositions by the PES, as well as information on benefit sanctions and compliance with benefit conditions (e.g. attendance at interviews with the PES or cooperation with PES staff). Thus, though we are still not able to observe soft characteristics directly like motivation and ability of the unemployed, we have a set of previously unavailable important proxy

variables and we are able to capture their indirect effects on the pre-programme employment history that is effectively observed from shortly after unification in 1990 onwards. Moreover, it is important to note that it is unlikely that caseworkers use considerably more information than the standard information documented in the official records that constitute our data. The reason is that in the period under consideration it was quite common, especially in East Germany, that caseworkers were responsible for up to 800 unemployed at the same time (Winkler, 2004).¹³ As a result, interviews took place only very infrequently and the time available per interview was very limited. In addition, available places in training and employment programmes were limited which introduces an additional source of potential randomness to the selection process.

Another issue is selection between different types of programmes. Conditional on sufficient places being available, the different types of training are assigned mainly based on educational needs. In our data, we observe education in a detailed way and in different dimensions including schooling, vocational training, university education, held occupations, job positions and earnings in the past as well as participation in training programmes in the past. In contrast, the employment programmes are mainly used as a policy of 'last resort', either for people who have been unemployed for long times and therefore have particularly bad employment prospects and for whom other measures like training have failed so far, or they are used in regions with particularly bad labour market conditions. All these factors are directly observed in the data.

4.2 Estimation

All possible parametric, semi- and nonparametric estimators of treatments effects with observational data are built on the principle that for every comparison of two programmes, for par-

¹³ In comparison, since the introduction of the 'New Deal' in the UK the common relation is 40-60 unemployed per caseworker (Winkler, 2004).

ticipants in the programme of interest, we need comparison observations from the other programme with the same distribution of relevant characteristics. Characteristics are relevant if they jointly influence selection and outcomes (see Section 4.1 for these variables). Here, we use adjusted propensity score matching estimators for multiple treatments as our baseline estimator to produce such comparisons. A clear advantage of these estimators is that they are essentially nonparametric and that they allow arbitrary individual effect heterogeneity (see Heckman, LaLonde, and Smith, 1999, for matching with a binary treatment, and Imbens, 2000, and Lechner, 2001, for multiple treatments).

To obtain estimates of the conditional choice probabilities (the so-called propensity scores), which we use in our selection correction mechanism to form our comparison groups, we estimate probit models for all comparisons (all programme types against each other as well as nonparticipation). The analysis revealed that gender, age, qualification, and family status are important individual characteristics that determine participation. Furthermore, observed employment and unemployment histories are significantly correlated with participation choice. Moreover, the characteristics of the desired job an unemployed is looking for differ systematically among programmes. Regional information, such as the industrial, employment, and wealth composition of the region as well as tax revenues, which entered the probits in a highly disaggregated way to capture the specifics of supply and demand in the local labour market, play important roles in the selection process. Finally, remaining unemployment benefit claims indeed seem to provide rather strong incentives to enter a programme.

We use a matching procedure that incorporates the improvements suggested by Lechner, Miquel, and Wunsch (2006). These improvements aim at two issues: (i) To allow for higher precision when many 'good' comparison observations are available, they incorporate the idea of calliper or radius matching (e.g. Dehejia and Wahba, 2002) into the standard algorithm used for example by Gerfin and Lechner (2002). (ii) Furthermore, matching quality is increased by

exploiting the fact that appropriately weighted regressions that use the sampling weights from matching have the so-called double robustness property. This property implies that the estimator remains consistent if either the matching step is based on a correctly specified selection model, or the regression model is correctly specified (e.g. Rubin, 1979; Joffe, Ten Have, Feldman, and Kimmel, 2004). Moreover, this procedure may reduce small sample bias as well as asymptotic bias of matching estimators (see Abadie and Imbens, 2006) and thus increase robustness of the estimator. The actual matching protocol is shown in Table B.1. See Lechner, Miquel, and Wunsch (2006) for more information on this estimator.

5 The effects of programme participation

According to German legislation, the main objective of German ALMPs is to reduce unemployment by improving the chances of the unemployed to find regular (unsubsidised) employment. However, since in East Germany there are particularly bad labour market conditions, other objectives like preventing or reducing human capital depreciation, keeping the unemployed attached to the labour market or providing social contacts and organised daily routines by 'keeping them busy' in subsidised employment or training programmes without the direct prospect of finding a regular job have received non-negligible weight. Since in a situation with more than 20% of people not employed, providing a decent income for those people and avoiding social unrests may be another implicit goal of that policy.

We try to capture the different aspects of the potential effectiveness of the different programmes by considering a variety of outcome variables. The outcome *unsubsidised employment* measures the programmes' success in helping their participants to find regular employment. We also assess the quality of employment in terms of stability of the earnings compared to previous jobs¹⁴ as well as potential gains in productivity measured by actual earnings differ-

¹⁴ If there is a significant scarring (for which European evidence is limited), then this will show up in a significant difference of the employment effects conditional and unconditional on earnings.

ences. In contrast, *registered unemployment*, which here includes programme participation, measures whether individual unemployment is indeed reduced. The outcome *programme participation* assesses whether the programme participation we evaluate changes the probability of future programme participation in the same or a different programme.

We also measure whether participants are better off in terms of *total earnings*, i.e. the sum of earnings from subsidised and unsubsidised employment and any benefits from the PES. In contrast, to assess some of the programme costs, the outcome *received benefits* measures the benefits and subsidies paid by the PES to the unemployed. This outcome variable includes all benefits (UB, UA, MA) received during participation in training courses and 60% of the wages from subsidised employment. The latter is a conservative proxy for subsidies paid by the PES, since that share is not directly observable in the data. In many cases, the subsidised fraction of the wage is certainly much higher.

We also assess whether the programmes succeed in keeping their participants busy through any form of employment or participation in any kind of programme. Finally, to enable the comparison with previous findings from earlier studies, we consider the outcome total employment that includes both subsidised and unsubsidised employment.

Below, we present various figures displaying the average programme effects for the programme participants of the different programmes for various outcome variables. Each line in the respective figure represents a different programme and relates to the effects for the specific population of participants in that programme. Dots appear on a particular line if the effect is point-wise significant on the 5%-level. We also indicate by a grey vertical line the median actual durations of the programmes.

Results are either measured in percentage points when they relate to changes in labour market status, or in differences of (year 2000) EUR when they relate to some earnings or income variable. All effects are measured half-monthly based on time relative to the start of the

programme (with simulated start dates for nonparticipants): *Half-month 1* is the half-month after the programme started. Focusing on the beginning instead of the end takes into account the potential endogeneity of actual programme duration. The labeling on the corresponding axes refers to the respective month after the start of the programme.

In the figures presented below, we only focus on the comparisons with nonparticipation. Extensive inter-programme comparisons are available in the internet appendix of this paper, as well as in Table 7 below. Moreover and also for the comparisons with nonparticipation, Table C.1 in Appendix C summarises the short-run effects of the programmes 6 months after programme start, the effects at the end of our observation period as well as the effects accumulated over the 2.5 years we observe as a proxy of the net effects. Further results are available in the internet appendix.

5.1 Programmes increase unemployment of their participants

Figure 2 shows the first of our key findings, namely that programme participation generally increases individual unemployment compared to nonparticipation. From the figure, we see that this effect differs substantially between the programmes, but there is not a single programme leading to a reduction in unemployment.

Figure 2: Effects of programme participation compared to nonparticipation: registered unemployment

figure2.eps

Note: Abscissa: Months after programme start. Ordinate: Effect in %-points (/100). Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). Grey vertical lines indicate the median duration of the programmes stated right to the line.

Generally, the negative effects are worst in the beginning and decline somewhat over time and they are related to programme duration: Over the 30 months considered, participants in DC accumulate 14 (!) months of additional unemployment, with SAM 11 months, with JCS 8 months and with GT-9+ they accumulate 7 months (see Table C.1 in Appendix C for detailed

results). The increase in the unemployment duration may well be due to the fact that all programmes increase unemployment benefit claims.

5.2 Programmes keep participants busy and increase benefit receipt

Figure 3 shows that the programmes do not only increase unemployment, but they also increase the likelihood of attending another programme in the future. This seems particularly true for the three types of the short training measures. In total over the 2.5 years after programme start, these programmes accumulate each about 10-11 months of additional programme participation, whereas the other programmes add about 5-7 months of additional programme participation (conditional on at least one future participation). Since nonparticipants accumulate very few programme participation, these numbers correspond more or less to the total cumulated months of further participation (see last column of Table 6). In total, 16% of nonparticipants exhibit some programme participation after the 3-year window for which we require them not to participate, while 40-60% of participants participate again (see Table 6). Nonparticipants mainly participate in the category other programmes, the largest fraction of which is temporary wage subsidies for regular jobs and support of self-employment. This category is also frequented by most of the participants who exhibit future participations.¹⁵ Participation in the short training measures is often followed by GT and for JSA also by DC. Participants in GT, on the other hand, often participate in a JCS after the completion of GT.

¹⁵ In many cases, regular programmes were followed by periods of employment accompanied by a 6 or 12 months wage subsidy. To avoid having to pay back that subsidy, firms have to keep the initially subsidised employers for at least another period of unsubsidised employment of the same length as the subsidised employment period. Therefore, for some comparisons we see large drops in programme participation (for the definition of the outcome variables and the state of nonparticipation, all wage subsidy programmes are coded as programme participation, even if they are not explicitly evaluated in this paper) about 6 months after the end of a 6-month wage subsidy. See the internet appendix for all details.

Unfortunately, the sample sizes in our data are not sufficient to apply a dynamic evaluation approach for sequences of programmes as suggested e.g. by Lechner (2007). Moreover, so far we cannot rule out that our observation period is too short to detect potential positive employment effects of participating in a longer sequence of programmes (but see the results of the sensitivity analysis in Section 5.5).

Figure 3: Effects of programme participation compared to nonparticipation: further programme participation

figure3.eps

Note: Abscissa: Months after programme start. Ordinate: Effect in %-points (/100). Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). Grey vertical lines indicate the median duration of the programmes stated right to the line. For programme participants we only consider further participations after the actual programme evaluated.

Table 6: Further programme participation (%)

Treatment status	SCM	JSA	ST	JRT	GT	DC	JCS	SAM	Other	At least one	Total duration*
Nonparticipation (NP)	1	3	2	.1	.8	.2	3	.4	7	16	3.8
Short combined measures (SCM)	10	8	5	2	18	6	7	2	16	62	10.1
Jobseeker assessment (JSA)	2	14	4	2	10	11	7	3	17	59	11.2
Short training (ST)	3	8	9	2	11	5	8	5	20	59	10.8
Job related training (JRT)	5	12	6	4	5	2	9	4	13	51	6.7
General training (GT)	3	9	7	1	6	1	8	3	20	51	6.4
Degree course (DC)	4	10	6	1	6	3	3	1	13	41	5.3
Job creation scheme (JCS)	4	7	3	1	4	2	13	2	20	49	6.9
Structural adjustment meas. (SAM)	4	6	4	1	3	2	7	4	13	38	7.4

Note: The largest fraction of *Other* are temporary wage subsidies followed by support of self-employment. *Mean cumulated further programme participation 2.5 years after programme start in months conditional on at least one future participation.

Our next finding in Figure 4 shows the effect of programme participation on any form of employment, including the time in any programme. It shows that one of the effects of programmes in East Germany is keeping the unemployed busy. For all programmes, Figure 4 shows that for this definition of employment large drops occur around the time when most participants complete their programme.

Figure 4: Effects of programme participation compared to nonparticipation: subsidised and unsubsidised employment and programme participation

figure4.eps

Note: Abscissa: Months after programme start. Ordinate: Effect in %-points (/100). Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). Grey vertical lines indicate the median duration of the programmes stated right to the line.

5.3 Programmes do not increase the employment chances of their participants

It should clearly be one of the primary goals of East German training and employment programmes to improve the chances of the participants to find an unsubsidised job. However, Figure 5 shows that after 2.5 years such effects are absent.

Figure 5: Effects of programme participation compared to nonparticipation: unsubsidised employment

figure5.eps

Note: Abscissa: Months after programme start. Ordinate: Effect in %-points (/100). Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). Grey vertical lines indicate the median duration of the programmes stated right to the line.

The only programmes that have no, or almost no, negative effect at the end of the observation period are the short combined measures (SCM) and short general training (GT-9M). All other programmes have significant negative effects. This result also holds when we only look at employment that generates at least 75% or 90% of pre-treatment earnings (see Appendix C). However, 2.5 years might be too short an observation period for a programme that has a typical duration of 2 years, like DC, and a corresponding large (huge!) lock-in effect. This programme may or may not show future positive effects. Even for this programme, it is worrying though that the negative effect after 2.5 years is quite large with about -15%. Certainly, for the short training programmes and probably also the employment programmes, the negative effects after 2.5 years are an indication that negative or at least no positive long-run effects should be expected since the majority of the programmes ends well before our observation period.

5.4 Several groups of participants would have been better off had they participated in a different programme

We already saw that some groups of programme participants would have had better labour market chances had they not participated in any programme. In this section, we show that even ignoring the option of nonparticipation, some programme groups would have fared better had they participated in a different programme.

Table 7: Effects of programme participation for participants in one programme had they participated in another programme: unsubsidised employment 2.5 years after programme start

Program	Comparison state										Best alternative ⁺
	Employment: diagonal: mean in %, off-diagonal: difference in %-points										
	SCM	JSA	ST	JRT	GT-9M	9M+	DC	JCS	SAM	NP	
SCM	36	5	8	10	1	8	-2	13	14	-1	-
JSA	-9	31	-4	2	-8	-3	3	2	7	-6*	GT-9M
ST	-7	3	33	-11	-6	6	14	10	13	-6	NP
JRT	-14	-2	-7	32	-10	-4	-1	10	8	-9	GT-9M
GT-9M	-4	6	0	10	42	7	22*	12	10	-1	-
GT-9M+	-9	3	-1	7	-8	37	19	10	10	-10*	NP
DC	-11	-6	-16*	-5	-15*	-9	20	-2	-2	-12*	ST
JCS	-4	-1	-3	-4	-12*	-13	1	17	-1	-6*	GT-9M+
SAM	-2	-3	-2	-4	-9	-3	3	3	28	-11*	NP
Cumulated received benefits in year 2000 EUR: diagonal: mean benefits, off-diagonal: difference											
	SCM	JSA	ST	JRT	GT-9M	9M+	DC	JCS	SAM	NP	
SCM	19283	-1354	28	-253	-2927	-3233	-8655	-5384	-10133*	5405*	NP
JSA	2839	20057	3358*	-86	-717	-3341	-8519*	-3165	-9014*	7017*	NP
ST	-592	-2949	18356	1525	-1911	-4730	-14187*	-4974	-10051*	5111*	NP
JRT	3937	971	4014	20173	951	-3621	-10983	-3792	-8436*	7552*	NP
GT-9M	3823	-114	3342	1400	20767	-4162*	-12888*	-3093	-8996*	3823*	NP
GT-9M+	8430*	2528	6466*	3420	3285	25210	-10923	-1397	-7455	13696*	NP
DC	12608*	7967*	14214*	7939*	9498*	6174*	29608	4158	-759	16425*	NP
JCS	6023	3800	6154	4656	3092	3524	-2204	26118	-899	10523*	NP
SAM	11169*	5546*	10338*	8115*	7111*	3108	1072	3655	28714	15819*	NP

Note: Numbers in *italics* indicate significance on the 10% level, **bold** numbers on the 5% level, and * on the 1% level. Dark shaded entries on the diagonal are the levels of the respective potential outcome in the respective group of participants. Off-diagonal elements are the effects of the programme given in the rows for its participants compared to the situation had those participants participated in the programme given in the header of the column. ⁺The difference to the outcome in the programme stated in the row must at least be significant on the 5% level.

Table 7 presents this comparison for all programmes and their participants (given in lines) compared to all alternatives (given in the columns) based on the outcome variables measuring unsubsidised employment and benefit payments. The shaded fields on the main diagonal of

this table show the level of the outcome variable for the actual participants in the respective programme while the off-diagonal elements show the differences in the outcome. Whenever an effect is negative (positive), it means that on average the programme group would have fared better in the alternative programme with respect to employment (benefit receipt).

Table 7 shows that participants in JSA, JRT, DC and JCS would have had better employment outcomes had they participated in short general training. Participants in DC would have fared even better in short training while participants in JCS could slightly improve more in longer general training. Overall, individual employment probabilities could have been increased by 4 %-points on average had the best alternative indicated in the last column of Table 7 been chosen. In contrast, sending nobody into the programmes would have been the benefit-minimizing strategy. Over the 2.5 years, we observe this would have saved on average about 4700 EUR per person. Moreover, allocating individuals to the shorter programmes, especially to short training, also would have reduced benefit payments considerably. Finally, except for SCM and JSA, the employment maximising strategy also would have implied substantially lower benefit payments. Thus, given the effect heterogeneity we find there is considerable scope for improvement in the allocation of the unemployed to the different programmes with respect to both costs and returns.

5.5 Unemployed with reasonable chances on the labour market got hurt most

Next, we analyse the effects of the programmes on unsubsidised employment for the groups with good and bad no-programme labour market chances separately. This separation is performed according to the no-programme employment index discussed in Section 3.3.

The results for the group with better chances are presented in Figure 6. They are striking in the sense that all programmes with the exception of GT-9M (and perhaps SCM) hurt this group. SAM, JCS, and DC have large negative effects of about -30%, whereas the shorter programmes have negative effects between -10% and -20%. For the group which has worse

labour market chances even without the programmes (Figure 7), at least none of the programmes seem to reduce employment after 30 months significantly, however, a significant positive effect cannot be detected either.

Figure 6: Effects of programme participation compared to nonparticipation: unsubsidised

employment; unemployed with non-programme employment chances above the median

figure6.eps

Note: Abscissa: Months after programme start. Ordinate: Effect in %-points (/100). Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). Grey vertical lines indicate the median duration of the programmes stated right to the line. The employment index is equal to the predicted probabilities from a probit in the pool of nonparticipants. Dependent variable: employed in unsubsidised employment with at least 90% of the earnings of the last job before programme start, measured in half-month 60 after programme start.

A straightforward reason for this finding may be due to differential lock-in effects. The better the pre-programme employment chances, the quicker an unemployed finds a job. Therefore, the reduction in employment rates due to a lack of job search and reduced job offers while participation in a programme is larger for 'better' unemployed, leading to a larger lock-in effect as compared to 'worse' unemployed who would need longer anyway to find a job. Apparently, the lock-in effects got so large that 'good' programme participants could not recover.

Figure 7: Effects of programme participation compared to nonparticipation: unsubsidised

employment; unemployed with non-programme employment chances below the 33% quantile

figure7.eps

Note: Abscissa: Months after programme start. Ordinate: Effect in %-points (/100). Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). Grey vertical lines indicate the median duration of the programmes stated right to the line. The employment index is equal to the predicted probabilities from a probit in the pool of nonparticipants. Dependent variable: employed in unsubsidised employment with at least 90% of the earnings of the last job before programme start, measured in half-month 60 after programme start.

5.6 Sensitivity analyses

We conducted sensitivity analyses in two dimensions. First, we check the robustness of our results in comparison to earlier findings. In a previous study by Lechner, Miquel, and Wunsch (2007) that was based on a similar methodology, we found generally more positive effects of

training programmes that were in effect 10 years earlier. Compared to nonparticipation we found significant positive effects for retraining (similar to DC) after about 35 months, for training courses longer than 6 months after 25 months, and for training courses with durations of 6 months or shorter after about 12 months. There are several differences between this and our present study. First, the earlier study looks at total employment as outcome variable because it was not possible to distinguish subsidised from unsubsidised employment. We therefore look at this outcome as well but still find that the programmes are ineffective (see Table C.1 in the appendix as well as Figure IC.4 in the internet appendix).

Second, some of the covariates we use to control for selectivity had not been available in the earlier study, for example the health-related variables, compliance with benefit conditions and the characteristics of the desired job. To investigate the implications of the unavailability of these variables we did two estimations without them. In the first one, we leave out the new variables. In the other one, we additionally adjust the probit models such that other variables (in particular those summarising the employment history) may pick up the effects of the excluded variables. In the first case, the results are somewhat more positive but conclusions do not change. The results of the second case are very similar to our original estimation (see the figures in internet appendix IC.6). This supports our argument that controlling for differences in employment histories in a sufficiently detailed way is able to make up for other potentially missing variables because their effects are picked up indirectly.

Third, the earlier study was able to look at outcomes up to eight years after programme start. Here, we look at recent programmes and observe outcomes only up to 2.5 years after programme start. To be able to estimate longer-run effects we do a sensitivity check where we only use entries into unemployment in 2000-2001 and only evaluate programmes before 2002. This enables us to observe outcomes up to 3.5 years after programme start. Of course, the populations for which we estimate the effects are different now. However, our result that

none of the programmes increases unsubsidised employment is strongly confirmed: The effects stabilise after about 3 years around zero except for job creation schemes for which we still observe a stable and significant negative effect (see internet appendix IC.7).

The fourth difference is with respect to the composition of the participants. Given that we find particularly pessimistic results for persons with good a priori employment chances these differences might explain our findings. However, participants in our study have on average even worse characteristics than the ones in Lechner, Miquel, and Wunsch (2007), so that *ceteris paribus* we would expect results that are more favourable.

The second dimension of our sensitivity analyses is the robustness of our results with respect to the applied methodology. First, an important issue is the choice of the treatment window for the definition of participants and nonparticipants. Sianesi (2004) and Fredriksson and Johansson (2008) argue that requiring nonparticipants not to participate for three years might induce some bias because of the conditioning on future outcomes. This bias could work in favour of the so-defined nonparticipation status and lead to an underestimation of the programme effects if nearly every unemployed has to participate. From Table 6 we see, however, that this is not the case. We test the sensitivity of our results with respect to the choice of the treatment window by reducing it to 24 and to 12 months. According to the logic of Fredriksson and Johansson (2008), if there is a bias it should decrease in this case. Note that the estimated effect is changing as well because nonparticipants are defined differently. Moreover, precision is reduced since sample sizes decrease. Indeed, the results become more positive when the treatment window is reduced but the effects still stabilise around zero, implying that the programmes do not succeed in raising unsubsidised employment among participants (see internet appendix IC.5).

Second, we test a more simple approach for simulating programme start dates for nonparticipants. For each nonparticipant we randomly draw a start date from the empirical

distribution of start dates among participants in our sample. The results are somewhat more positive but the conclusion that the programmes are ineffective is unchanged. Third, we impose a stricter common support requirement by restricting the support to the intersection of the participants in a specific programme with all alternatives rather than to the intersection with a specific comparison of interest. The precision is reduced because considerably more observations are discarded but the conclusions do not change. For further checks regarding the properties of the applied matching estimator see Lechner, Miquel, and Wunsch (2006).

Finally, we did not find any substantial heterogeneity of the programme effects for the socio-economic groups we looked at, other than the general feature mentioned above, namely that unemployed with intact pre-programme labour market chances fair worse than unemployed with bad pre-programme labour market chances (see e.g. internet appendix IC.2 for the gender differences).

7 Conclusions

In this paper, we analyse the most important components of the East German active labour market policy between 2000 and 2002. Our empirical investigation is based on a well-suited, large, and informative individual database of participants and nonparticipants that originated from administrative records. These data are analysed with econometric matching methods. We consider various labour market outcomes over a period of 30 months after the respective programmes started. Our analysis leads us to the following policy conclusions:

If the success of the programmes is measured by the primary goal of the official active labour market policy (ALMP), namely that ALMP should bring its participants back into jobs in the first (regular) labour market, all programmes failed. They do *not improve* employment chances or earnings. In particular, for the group of individuals with better employment chances in the labour market, several programmes *reduce* those chances by a considerable

amount. This finding is, however, not surprising. By using training and employment programmes, active labour market policies can at best reduce unemployment due to mismatch in the labour market. Furthermore, it may prevent a deterioration of the general human capital of the workforce due to individual interruptions of the employment spells and the lack of learning on the job while unemployed. ALMP can certainly not solve the deep structural problems in the labour market experienced in East Germany over the last decade. In other words, it tries to alleviate some of the symptoms of the 'sickness' of the East German labour market, but cannot cure the disease.

Before discussing some further policy conclusions, a cautionary note is in order here. On the one hand, the number of participants is quite large in East Germany as a fraction of all unemployed. By looking at the effects for the programme participants we cannot preclude that there are spill-over effects in the form of reduced competition for nonparticipants, which might explain some of our negative results. On the other hand, evaluation studies for similar West German programmes in the same period also provide a rather pessimistic assessment of the overall effectiveness of the programme. The difference is, however, that all studies find positive and significant employment effects at least for some groups of unemployed and programmes (see e.g. Biewen, Fitzenberger, Osikominu, and Waller, 2006; Wunsch and Lechner, 2008). Thus, there remains an issue about the specific nature of the unemployment problem in East Germany.

If ALMP fails to deliver better individual labour market outcomes given the specific circumstances of the East German economy, could it still be worthwhile running ALMP programmes? Indeed, one may argue that ALMP is still required in East Germany at least for two reasons: The first reason is that participation in those programmes keeps people busy and provides them with some income from work or work-related tasks. In other words, it may be and is used to combat social unrest in an environment that saw (official) unemployment rates

around 20% for a long time, and non-employment rates that are considerably higher. The second reason for having ALMP could be to keep people ready for work, i.e. use short training and employment programmes to keep their working skills and human capital from deteriorating, so that they actually will find jobs when (if) the structural problems of the East German economy will be overcome and the economy will ultimately pick up. Our analysis shows that the programmes are effective in the first dimension. The effectiveness in the second dimension however remains to be seen.

Taking those arguments seriously, an active labour market policy for East Germany should give up the goal of increasing the individual probability of unemployed to find regular employment, which cannot be achieved anyway. Instead, it should concentrate on the two smaller goals explained above, which are worth reaching as well. However, such a policy would look differently than the one we analysed. In particular, it would drastically reduce expensive long-term courses that make only sense if the unemployed were educated with skills that are in considerably short supply, which does not appear to be the case on a large scale in East Germany. Unemployed should participate in employment programmes and take up jobs related to hiring subsidies, even if those jobs will only be of a temporary nature. Furthermore, sending unemployed from time to time to shorter training to practice and update their skills should also be considered as worthwhile. However, there remains the overarching issue of the costs to reach the limited goals of such a policy. Although costs would probably be somewhat smaller than for today's policy, it is not clear at all how much the taxpayer will be willing to pay for such a reorganised active labour market policy in East Germany.

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Appendix A: Data

A.1 Features of the data sources merged in the combined database

Table A.1: Data sources used

Source	Period	Available information	Important variables
Social insurance records	Jan. 1990- Dec. 2004	Times of insured employment; personal characteristics	Form of employment, industry, earnings, position in job; occupation, education, age, gender, nationality, regional information
Benefit payment register	Jan. 1990- Jun. 2005	Times of receipt of unemployment benefits, unemployment assistance or maintenance allowance; personal characteristics	Type and amount of benefit, remaining benefit claim, benefit sanctions; marital status, number of children
Programme participation data	Jan. 2000- Jun. 2005	Participation in ALMP measures; programme information; personal characteristics	Type of programme, planned and actual duration, (un)successful completion, capacity; occupation, education, health problems, regional information
Jobseeker register	Jan. 2000- Jun. 2005	Job search relevant information; personal characteristics	Desired form of employment, reason for determination of last employment, number of job offers, compliance with benefit conditions, date of last interview, health problems and judgement whether these affect employability

A.2 Further details on the data

Several groups of people are not included in the data either because they have not been subject to social insurance contributions like civil servants and the self-employed, or because they receive benefits that are not administered by the PES like recipients of social assistance. However, focusing on unemployed individuals who receive unemployment benefits or unemployment assistance - which is the main target group of German ALMP and for whom is full record of these people in the data - alleviates this problem to a large extend.

Appendix B: Technical details of the matching estimator used

Table B.1: A matching protocol for the estimation of a counterfactual outcome and the effects

Step 1	Specify a reference distribution defined by X .
Step 2	Pool the observations forming the reference distribution and the participants in the respective period. Code an indicator variable W , which is 1 if the observation belongs to the reference distribution. All indices, 0 or 1, used below relate to the actual or potential values of W .
Step 3	Specify and estimate a binary probit for $p(x) := P(W = 1 X = x)$
Step 4	Restrict sample to common support: Delete all observations with probabilities larger than the smallest maximum and smaller than the largest minimum of all subsamples defined by W .
Step 4	<p><i>Estimate the respective (counterfactual) expectations of the outcome variables.</i></p> <p>Standard propensity score matching step (multiple treatments) a-1) Choose one observation in the subsample defined by $W=1$ and delete it from that pool. b-1) Find an observation in the subsample defined by $W=0$ that is as close as possible to the one chosen in step a-1) in terms of $p(x), \tilde{x}$. 'Closeness' is based on the Mahalanobis distance. Do not remove that observation, so that it can be used again. c-1) Repeat a-1) and b-1) until no observation with $W=0$ is left.</p> <p>Exploit thick support of X to increase efficiency (radius matching step) d-1) Compute the maximum distance (d) obtained for any comparison between member of reference distribution and matched comparison observations. a-2) Repeat a-1). b-2) Repeat b-1). If possible, find other observations in the subsample of $W=0$ that are at least as close as $R \cdot d$ to the one chosen in step a-2) (to gain efficiency). Do not remove these observations, so that they can be used again. Compute weights for all chosen comparisons observations that are proportional to their distance. Normalise the weights such that they add to one. c-2) Repeat a-2) and b-2) until no participant in $W=1$ is left. d-2) For any potential comparison observation, add the weights obtained in a-2) and b-2).</p> <p>Exploit double robustness properties to adjust small mismatches by regression e) Using the weights $w(x_i)$ obtained in d-2), run a weighted linear regression of the outcome variable on the variables used to define the distance (and an intercept). f-1) Predict the potential outcome $y^0(x_i)$ of every observation using the coefficients of this regression: $\hat{y}^0(x_i)$. f-2) Estimate the bias of the matching estimator for $E(Y^0 W = 1)$ as: $\sum_{i=1}^N \frac{\mathbf{1}(W = 1)\hat{y}^0(x_i)}{N^1} - \frac{\mathbf{1}(W = 0)w_i\hat{y}^0(x_i)}{N^1}$. g) Using the weights obtained by weighted matching in d-2), compute a weighted mean of the outcome variables in $W=0$. Subtract the bias from this estimate to get $\widehat{E(Y^0 W = 1)}$.</p>
Step 5	Repeat Steps 2 to 4 with the nonparticipants playing the role of participants before. This gives the desired estimate of the counterfactual nonparticipation outcome.
Step 6	The difference of the potential outcomes gives is the desired estimate of the effect with respect to the reference distribution specified in Step 1.

Note: We use the fixed-weight heteroscedasticity robust standard errors suggested by Lechner, Miquel, and Wunsch (2005a). Since participants and nonparticipants are independent, variance of the effect is the sum of the variances of the potential outcomes. \tilde{x} includes gender, elapsed unemployment duration until programme start, and programme start date. \tilde{x} is included to ensure a high match quality with respect to these critical variables. R is fixed to 90% in this application (different values are checked in the sensitivity analysis).

Appendix C: Additional results

Table C.1: Effects of programme participation versus nonparticipation for the participants

Treatment	Observations	Employment				Unemployment	Programme participation	Not unemployed	Earnings (year 2000 EUR)		
		Unsubsidised	Unsubsidised with stable earnings+ 75%	Unsubsidised with stable earnings+ 90%	Total (incl. subsidised)				From unsubsidised employment	Received benefits	Total earnings (incl. benefits)
Point estimate after 6 months in percentage points											
Short combined measures (SCM)	417	-13*	-10*	-10*	-1	18*	23*	18*	-201*	129*	-4
Jobseeker assessment (JSA)	1081	-23*	-16*	-17*	-8*	30*	22*	23*	-300*	173*	-57
Short training (ST)	551	-16*	-12*	-13*	2	21*	22*	16*	-226*	127*	-15
Job-related training (JRT)	323	-37*	-27*	-26*	-33*	41*	2	7	-514*	234*	-257*
General training (GT) ≤ 9 months	619	-35*	-25*	-26*	-32*	43*	4*	14*	-517*	281*	-214*
General training (GT) > 9 months	538	-53*	-37*	-36*	-53*	63*	0	42*	-858*	417*	-439*
Degree course (DC)	170	-43*	-29*	-29*	-42*	53*	3	54*	-620*	333*	-286*
Job creation scheme (JCS)	577	-26*	-16*	-16*	45*	32*	2*	46*	-326*	235*	204*
Structural adjustment meas. (SAM)	430	-41*	-27*	-27*	38*	49*	2*	39*	-550*	344*	144*
Point estimate after 2.5 years in percentage points											
Short combined measures (SCM)	417	-1	-4	-3	1	8	9*	7	-2	40*	52
Jobseeker assessment (JSA)	1081	-6*	-4*	-4	-1	13*	9*	5	-76*	56*	-1
Short training (ST)	551	-6	-5	-4	-2	9*	9*	4	-66	49*	3
Job-related training (JRT)	323	-9	-9*	-8	-3	15*	7*	-1	-111	48	-39
General training (GT) ≤ 9 months	619	-1	-2	-2	4	9*	8*	6	-13	28	34
General training (GT) > 9 months	538	-10*	-11*	-10*	-3	14*	8*	-2	-184*	65*	-88
Degree course (DC)	170	-12*	-11*	-8	-10	25*	5	9	-200*	117*	-77
Job creation scheme (JCS)	577	-6*	-4*	-4	-1	16*	7*	2	-71	70*	26
Structural adjustment meas. (SAM)	430	-11*	-9*	-8	4	19*	6*	8	-156*	107*	17
Cumulated outcomes after 2.5 years in months											
Short combined measures (SCM)	417	-2.2*	-3.9*	-2.0*	3	4.2*	5.4*	5.1*	-3388*	2703*	584
Jobseeker assessment (JSA)	1081	-4.3*	-6.2*	-3.1*	-1.5*	6.5*	5.6*	5.5*	-5654*	3509*	-911
Short training (ST)	551	-3.1*	-4.4*	-2.7*	1	4.6*	5.4*	4.2*	-4370*	2555*	-262
Job-related training (JRT)	323	-5.8*	-8.8*	-3.7*	-3.7*	7.3*	2.6*	3.2*	-7909*	3776*	-3181
General training (GT) ≤ 9 months	619	-4.6*	-6.2*	-3.5*	-2.8*	6.9*	2.7*	3.9*	-6514*	4134*	-1478
General training (GT) > 9 months	538	-8.5*	-11.5*	-5.6*	-6.9*	11.0*	2.3*	4.8*	-13772*	6848*	-6133*
Degree course (DC)	170	-14*	-13.6*	-6.3*	-1*	14.1*	1.1*	12.1*	-14706*	8213*	-6291*
Job creation scheme (JCS)	577	-5.0*	-6.5*	-3.2*	5.9*	7.7*	2.2*	6.8*	-6634*	5261*	3284*
Structural adjustment meas. (SAM)	430	-8.6*	-19*	-5.2*	7.2*	11.0*	1.6*	8.1*	-11501*	7909*	3585

Note: Numbers in *italics* indicate significance on the 10% level, **bold** numbers on the 5% level, and * on the 1% level. + Employed with earnings that correspond to at least the fraction of last previous earnings indicated in the cell below.

ACTIVE LABOUR MARKET POLICY IN EAST GERMANY:

WAITING FOR THE ECONOMY TO TAKE OFF

- INTERNET APPENDIX -

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This version: October, 2008

Date this version has been printed: 08 October 2008

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IA Descriptive statistics

IA.1 Descriptive statistics for all variables by participation status

Table IA.1: Means of all variables

Treatment	NP	SCM	JSA	ST	JRT	GT-9M	GT-9M+	DC	JCS	SAM
Observations	4024	429	1066	549	313	605	533	176	587	463
Personal characteristics										
Age in years	38	38	37	37	37	38	38	34	40	38
26-30 years	20	17	24	21	23	21	16	35	10	17
31-35 years	19	19	22	24	16	18	20	24	16	22
36-40 years	23	24	23	18	23	24	25	19	22	22
41-45 years	23	22	19	19	23	20	22	18	27	21
46-50 years	15	17	12	17	16	17	18	4	24	18
Woman	38	45	40	44	36	29	43	40	34	28
At least one child	44	44	50	49	48	48	51	53	45	47
1 child	24	22	28	28	27	28	30	26	24	24
2 children	16	17	17	18	17	17	17	23	16	19
More than 2 children	4	4	4	3	4	3	3	5	6	5
Age of youngest child < 4 years	62	62	57	59	60	59	56	54	59	58
Married	52	49	51	54	52	54	58	52	51	54
Single	32	33	31	30	34	31	24	31	34	31
Single with child	6	9	7	7	5	5	9	8	6	4
Unmarried couple	9	7	10	8	8	9	7	9	9	10
No professional degree	11	10	10	7	8	7	6	14	10	9
Completed apprenticeship	85	81	88	86	89	88	81	82	87	89
University/polytechnical college degree	14	11	11	9	10	9	9	11	19	7
Health problems affect employability	8	5	5	5	5	4	3	5	12	3
Disability	2	2	2	2	2	2	1	1	6	1
Disability can be compensated	27	29	25	30	27	27	31	30	15	20
Foreigner	1	1	2	1	2	1	1	1	0	1
Returning to the labour market	2	2	2	2	2	1	2	1	1	2
Characteristics of desired job										
Unskilled	30	28	27	22	26	21	18	38	31	24
Skilled	66	64	71	71	72	74	67	59	66	73
High-skilled	4	8	3	7	2	5	15	4	2	2
Full-time only	92	93	93	91	92	92	94	92	95	93
Part-time only	3	2	2	3	2	1	2	4	2	2
No work experience required	8	6	8	7	6	5	5	11	7	4
Would accept shift work	3	2	2	3	2	1	2	4	2	2

To be continued.

Table IA1: Means of all variables (continued)

Treatment	NP	SCM	JSA	ST	JRT	GT-9M	GT-9M+	DC	JCS	SAM
Characteristics of desired job (continued)										
Technical profession	3	3	3	4	2	5	8	5	3	3
Services	22	23	19	25	19	16	23	27	14	12
Construction and related professions	15	11	16	12	10	12	5	11	16	16
Manufacturing and processing	15	15	15	10	18	18	13	11	8	9
Other occupation	42	45	44	46	50	47	48	45	54	56
Occupational status in last job										
Unskilled	23	21	22	16	21	19	15	21	27	24
High-skilled	46	38	44	40	48	50	32	39	43	51
Clerk	20	29	23	35	23	24	44	24	16	19
Part-time worker	11	12	11	9	8	7	9	16	14	6
Profession										
Unskilled	5	4	5	3	5	5	3	4	5	4
Technical profession	4	4	5	6	4	6	13	5	5	3
Services	33	39	34	40	31	28	42	41	29	26
Construction and related professions	24	18	22	21	21	22	15	21	31	31
Manufacturing and processing	17	18	19	14	27	26	17	14	12	14
Other	17	16	15	15	12	13	9	14	15	22
Industry of last job										
Agriculture, forestry, fishing	4	3	4	3	4	2	2	2	6	8
Manufacturing	55	49	58	54	61	60	53	47	46	54
Construction	3	3	2	4	1	3	1	4	2	3
Logistics	4	4	3	5	3	4	4	6	2	4
Hotel, gastronomy	1	1	1	3	1	2	2	1	1	2
Other services	19	24	20	20	17	20	29	24	19	17
Other	4	3	4	3	3	2	4	5	5	4
Missing	12	12	8	9	11	7	8	11	19	9
Earnings of last job										
Monthly earnings in EUR	1386	1400	1364	1447	1698	1445	1594	1382	1323	1343
< 1000 EUR	25	24	24	19	21	18	16	20	22	18
1000-1200 EUR	15	13	16	13	16	16	14	17	17	17
1200-1400 EUR	16	21	17	19	20	18	15	19	19	21
1400-2000 EUR	33	30	33	37	35	35	34	34	35	39
≥ 2000 EUR	12	12	9	12	9	13	21	10	7	5
Remaining unemployment benefit claim at the beginning of the current unemployment spell										
No claim	50	57	45	50	38	27	26	40	65	34
Claim in days	101	70	106	88	140	157	162	105	59	116
1-3 months	11	13	12	17	11	15	14	17	11	19
4-6 months	13	17	15	11	14	16	18	18	11	24
7-12 months	22	11	25	19	31	35	35	24	9	18
> 12 months	4	2	3	3	6	6	8	1	3	5

To be continued.

Table IA.1: Means of all variables (continued)

Treatment	NP	SCM	JSA	ST	JRT	GT-9M	GT-9M+	DC	JCS	SAM
Employment history over the 10 years before programme start										
Duration of current unemployment spell in months	5	7	7	6	7	6	7	8	10	7
1-3 months	22	15	17	19	16	17	12	13	7	9
4-6 months	24	14	16	19	17	16	16	8	6	11
7-12 months	28	29	24	23	25	28	27	28	16	24
13-24 months	19	26	28	26	30	27	31	32	36	46
> 24 months	7	16	15	13	12	13	14	20	34	10
Benefit sanction at least once	4	5	4	3	3	2	1	5	4	5
Did not attend interview at PES at least once	14	12	11	9	10	8	10	9	13	9
Not cooperative with PES at least once	10	7	9	6	7	7	7	8	5	6
Fraction employed	66	66	65	69	66	70	70	64	58	68
Fraction part-time employed of fraction employed	10	10	10	7	8	6	9	12	10	6
Fraction unemployed	18	18	17	15	18	15	13	15	25	16
Fraction in programme	5	7	6	7	6	6	7	6	9	7
Fraction out of labour force	11	10	11	10	10	9	10	15	9	9
Total time employed in months	79	79	78	83	79	84	84	77	69	81
Total time unemployed in months	22	21	21	18	21	18	16	18	30	20
Total time in programme in months	6	8	8	8	7	7	8	7	10	8
Total time out of labour force in months	13	12	13	12	12	11	12	18	11	11
Time since last employment in months	7	6	5	5	6	4	4	6	11	4
Time since last unemployment in months	21	21	22	22	20	22	23	22	14	21
Time since last programme in months	15	19	16	17	17	18	21	14	16	16
Time since last out of labour force in months	28	28	29	27	29	28	25	25	28	34
Entry of current unemployment spell from out of labour force	15	16	14	16	16	14	14	16	24	11
Number of employments	3.2	3.3	3.2	3.1	3.2	3.3	2.8	3.1	3.5	3.4
Number of unemployment spells	3.1	3.2	3.2	3.0	3.2	3.2	2.8	2.9	4.1	3.5
Number of programmes	.6	.7	.7	.6	.7	.7	.7	.6	.9	.7
Number of out-of-labour-force spells	1.7	1.5	1.6	1.5	1.6	1.5	1.4	1.9	1.6	1.4
Average employment duration in months	44	46	44	48	47	47	55	46	34	43
Average unemployment duration in months	7	6	7	6	6	5	6	6	8	6
Average programme duration in months	5	6	5	6	5	5	6	5	7	6

To be continued.

Table IA.1: Means of all variables (continued)

Treatment	NP	SCM	JSA	ST	JRT	GT-9M	GT-9M+	DC	JCS	SAM
Employment history over the 10 years before programme start										
Average out-of-labour-force duration in months	7	8	8	7	7	6	7	10	6	7
Duration of last employment in months	25	23	26	26	26	26	28	23	16	23
Duration of last unemployment in months	6	6	5	5	5	5	5	5	8	5
Duration of last programme in months	4	5	5	5	4	5	5	4	6	6
Duration of last out of labour force spell in months	6	7	6	6	6	5	6	9	5	5
Number of job offers in last unemployment spell	02	03	03	03	03	03	02	02	03	03
Number of job offers in last unemployment spell missing	43	43	40	38	38	41	40	41	45	45
Regional information										
Mecklenburg-Western Pommerania	15	6	16	7	35	12	6	14	14	11
Brandenburg	19	19	16	17	4	26	24	21	19	25
Saxony-Anhalt	18	33	24	26	18	20	17	15	17	11
Thuringia	17	14	17	19	24	17	19	23	13	22
Saxony	32	28	26	31	19	26	35	27	37	30
Local unemployment rate	20	20	20	20	20	20	20	20	21	20
≤ 15%	8	9	8	9	6	10	8	10	4	6
16-20%	42	38	43	40	41	39	41	38	37	39
21-25%	40	45	39	44	40	40	43	42	46	42
> 25%	11	7	10	8	13	12	8	11	14	13
Fraction of long-term unemployed	46	45	45	45	45	45	46	45	46	46
< 40%	9	7	8	9	8	12	6	7	6	7
40-49%	76	80	79	80	81	73	78	79	76	73
≥ 50%	15	13	13	11	12	15	16	14	18	20
Social assistance recipients per capita	3.2	3.4	3.2	3.3	3.4	3.1	3.1	3.3	3.2	3.0
Fraction of foreigners	2.5	2.6	2.3	2.5	2.3	2.3	2.5	2.5	2.2	2.2
Local employment rate	45	46	44	46	45	44	45	45	43	43
Industry quota	30	29	30	29	29	30	30	30	30	31
Change in the number of employees in service sector per capita 1995-2002	-9	-9	-9	-9	-9	-9	-10	-10	-10	-11
Change in the number of employees in manufacturing sector per capita 1995-2002	-31	-32	-30	-32	-31	-30	-32	-32	-31	-31
Employees in primary sector per capita	4	3	4	3	4	4	3	4	4	4
Change in the number of employees in primary sector per capita 1995-2002	-14	-14	-11	-14	-7	-12	-15	-15	-11	-15

To be continued.

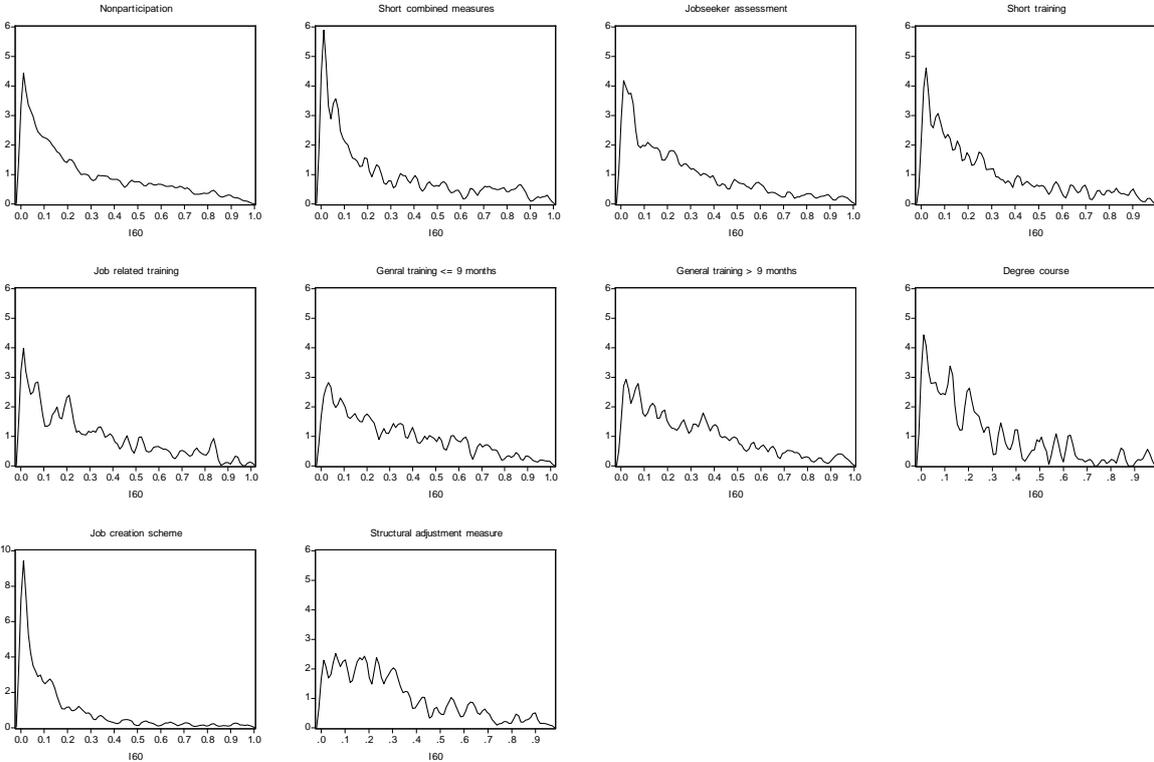
Table IA.1: Means of all variables (continued)

Treatment	NP	SCM	JSA	ST	JRT	GT-9M	GT-9M+	DC	JCS	SAM
	Regional information									
Change in the number of employees in secondary sector per capita 1995-2002	-24	-26	-24	-26	-25	-24	-24	-24	-25	-23
Change in the number of employees in tertiary sector per capita 1995-2002	5	6	5	5	4	6	5	5	5	5
Fraction of emigrants	4	4	4	3	4	4	3	3	3	3
Rural area	34	29	35	31	38	36	31	34	36	38
Number of medium-size cities	1.6	1.3	1.5	1.4	1.3	1.6	1.6	1.6	1.7	1.8
Number of big cities	.4	.5	.5	.5	.5	.5	.5	.5	.4	.5
Inhabitants in urban areas per capita	59	65	56	61	54	53	61	57	54	50
Distance to next big city (min)	119	17	121	112	127	123	116	121	121	123
Distance to autobahn (min)	18	15	18	17	18	19	17	16	20	19
Household income per capita (EUR)	1182	1190	1179	1187	1171	1180	1186	1173	1170	1173
Income tax per capita	8.2	8.5	8.0	8.3	7.8	8.1	8.3	8.2	7.7	7.9
Change in income tax revenue per capita 1995-2002	-72	-67	-72	-69	-70	-75	-73	-71	-77	-76
	Programme start									
2000	19	19	17	18	25	22	23	20	17	27
2001	40	43	35	38	40	41	38	32	44	46
2002	41	38	47	44	35	37	39	48	39	27
	Start of current unemployment spell in									
January	10	17	15	17	18	18	17	22	18	21
February	8	7	7	9	7	9	9	6	9	9
March	8	7	8	9	8	8	9	7	8	6
April	6	8	8	8	7	10	11	10	7	7
May	6	7	7	7	7	9	7	6	6	7
June	7	9	7	9	9	4	8	8	6	6
July	7	8	10	6	6	6	9	7	9	9
August	6	7	8	7	7	6	4	6	6	7
September	8	8	7	8	8	5	6	7	7	6
October	8	7	9	8	7	7	8	6	9	6
November	9	4	6	6	10	8	5	9	6	8
December	13	10	7	7	6	9	8	7	8	8

Note: If not stated otherwise entries are in per cent. All variables except for the duration of the current unemployment spell are calculated at or relative to the beginning of the unemployment spell in which (simulated) programme start takes place. The duration of the current unemployment spell is calculated at (simulated) programme start.

IA.2 Employment prospects by participation status

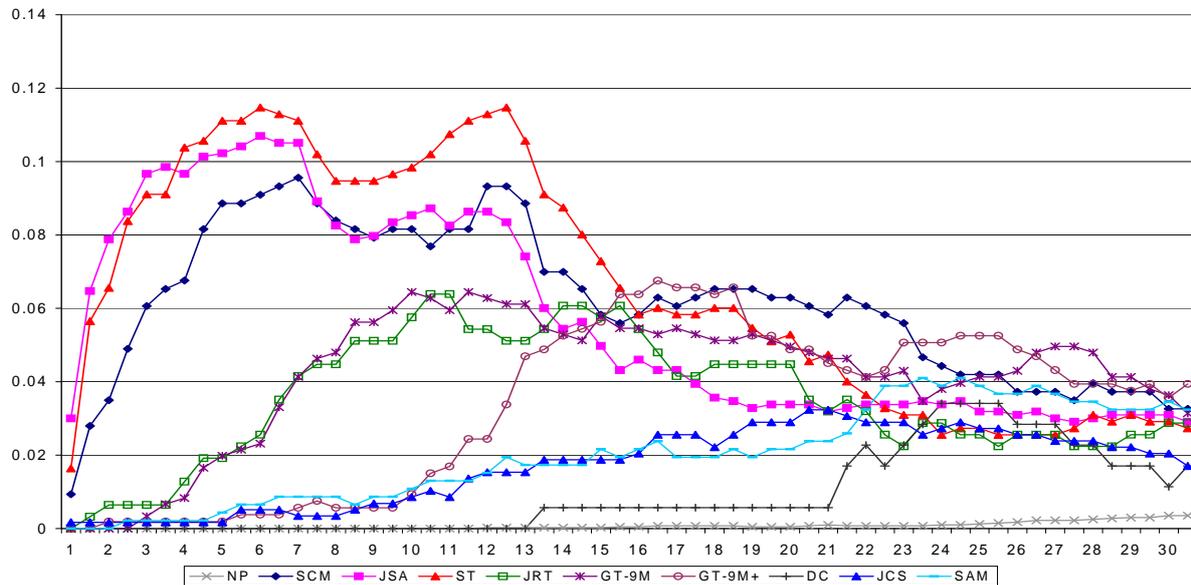
Figure IA.1: *Estimated kernel densities for the predicted probability to be employed in a job with at least 90% of previous earnings in half-month 60 after programme start*



Note: Epanechnikov kernel with bandwidth $h = 0.2$. Predicted probabilities from a probit in the pool of nonparticipants. Dependent variable: employed in unsubsidised employment with at least 90% of the earnings of the last job before programme start, measured in half-month 60 after programme start. Note the different scaling for job creation schemes.

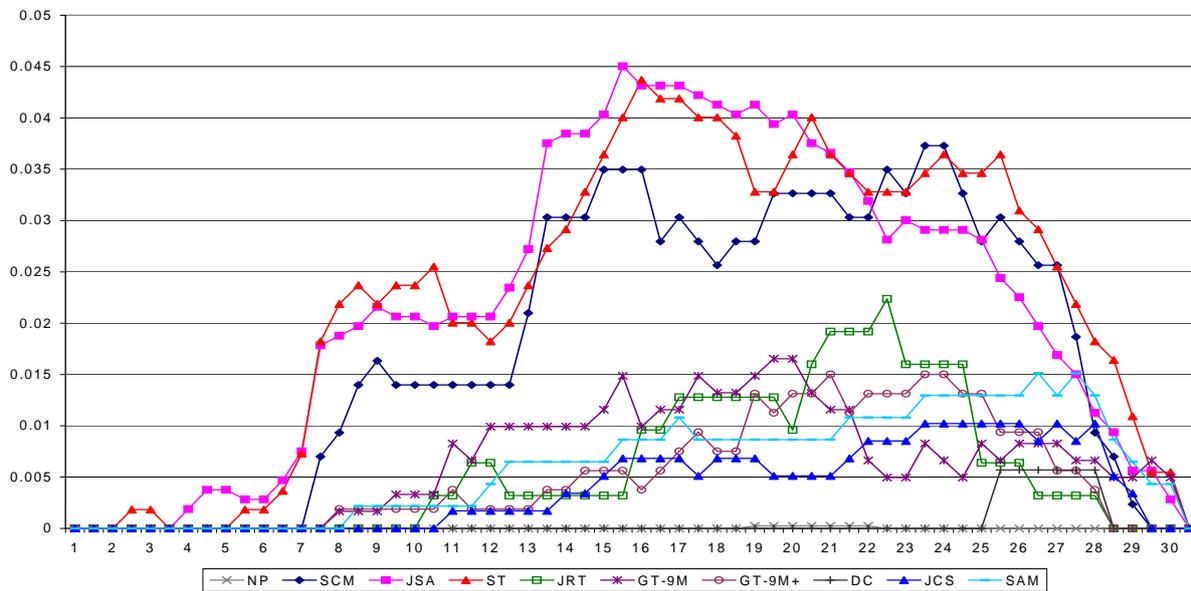
IA.3 Receipt of temporary wage subsidies and duration of regular employment

Figure IA.2: Receipt of temporary wage subsidies during regular employment by participation status



Note: Abscissa: Months after programme start. Ordinate: Mean participation rate in %-point.

Figure IA.3: Still employed after receipt of a temporary wage subsidies during regular employment by participation status

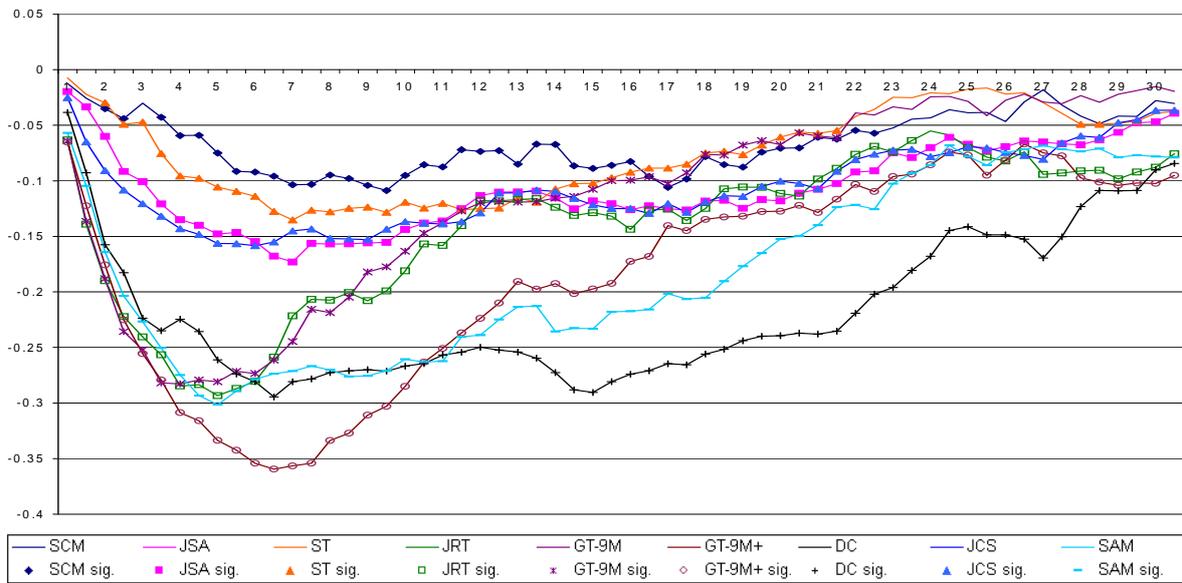


Note: Abscissa: Months after programme start. Ordinate: Mean employment rate in %-point.

IB Further estimation results

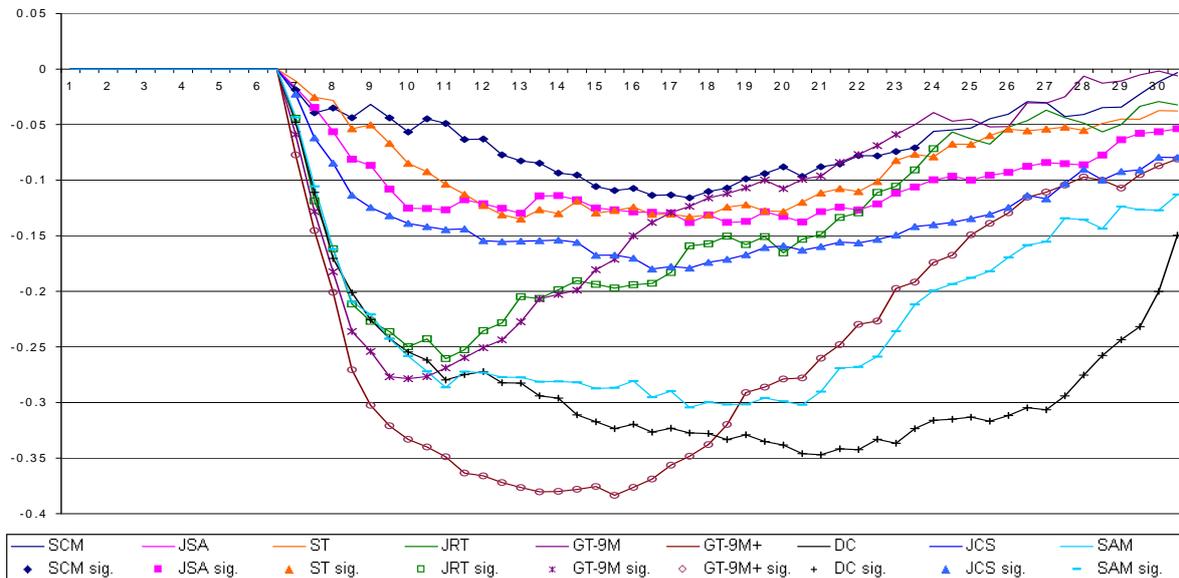
IB.1 Effect for additional outcome variables against nonparticipation

Figure IB.1: Effects of programme participation compared to nonparticipation: unsubsidised employment with stable earnings (%-points)



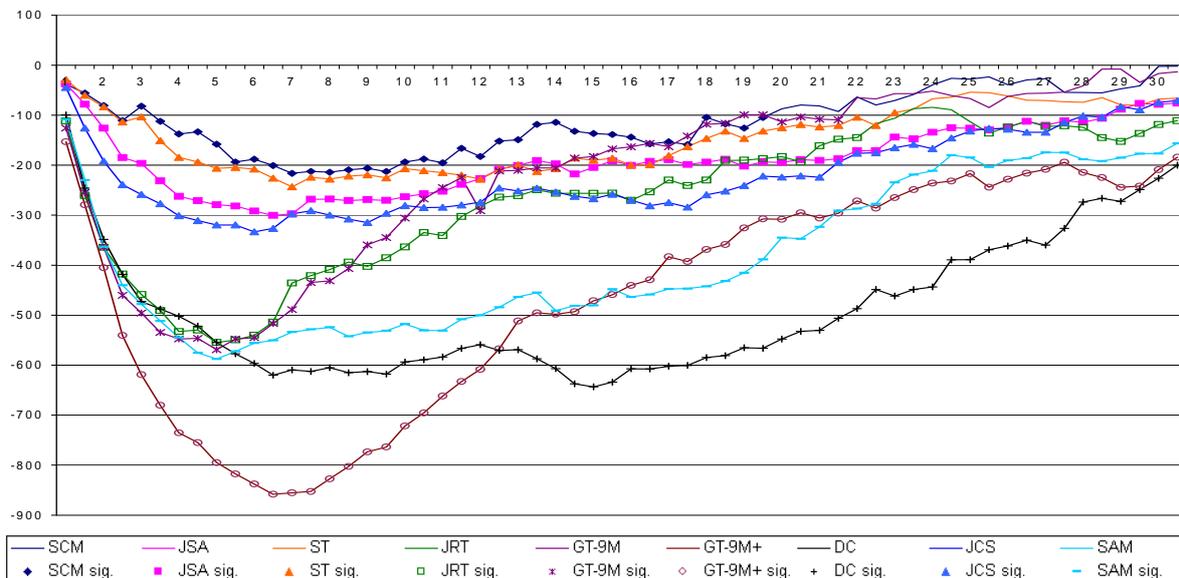
Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). The outcome variable equals 1 if the person is employed in unsubsidised employment with earnings of at least 90% of the earnings of the last job before programme start.

Figure IB.2: Effects of programme participation compared to nonparticipation: stable unsubsidised employment (%-points)



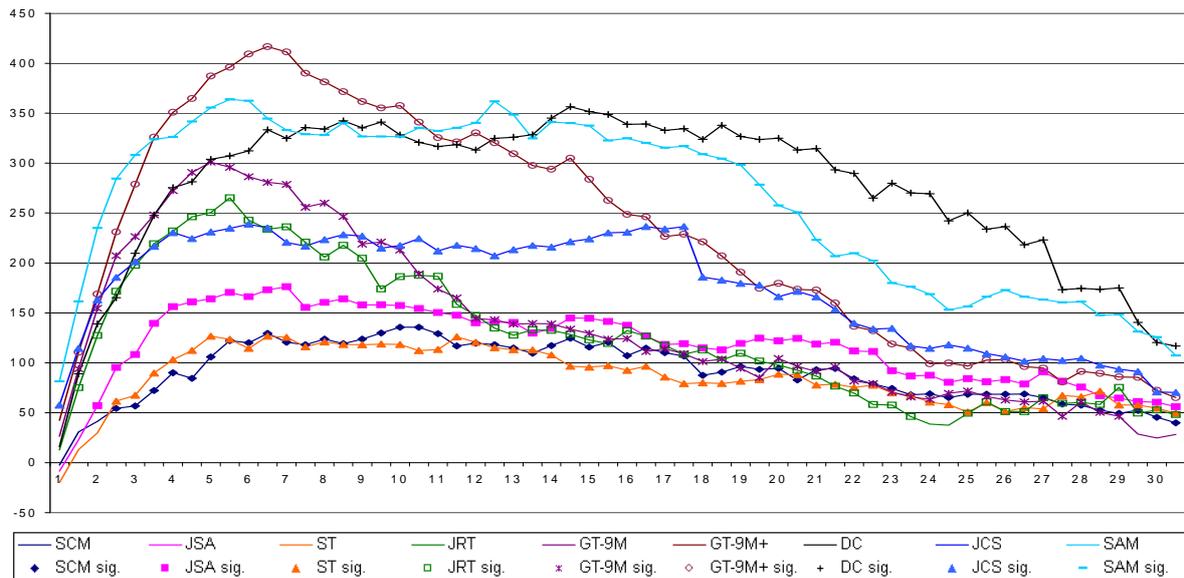
Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). The outcome variable equals 1 if the person is employed in unsubsidised employment in 7 consecutive months (6 months is the usual probation period in Germany).

Figure IB.3: Effects of programme participation compared to nonparticipation: earnings from unsubsidised employment (EUR)



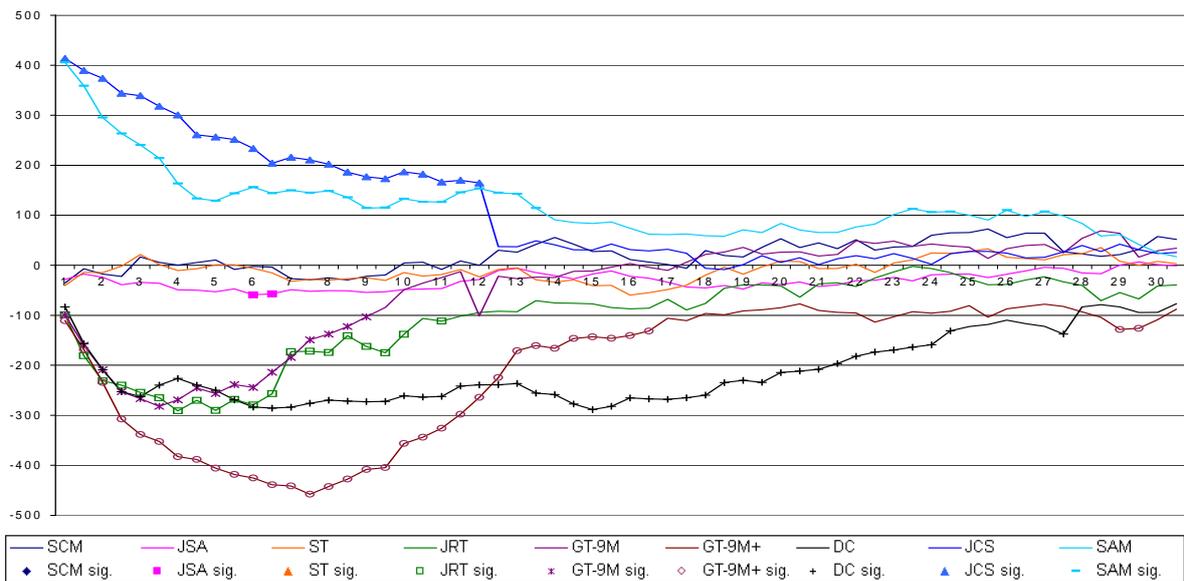
Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). The outcome variable reports the earning if a person is employed in unsubsidised employment.

Figure IB.4: Effects of programme participation compared to nonparticipation: benefits (EUR)



Note: Abscissa: Months after programme start. Ordinate: Effect in EUR. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.5: Effects of programme participation compared to nonparticipation: total earnings (EUR)

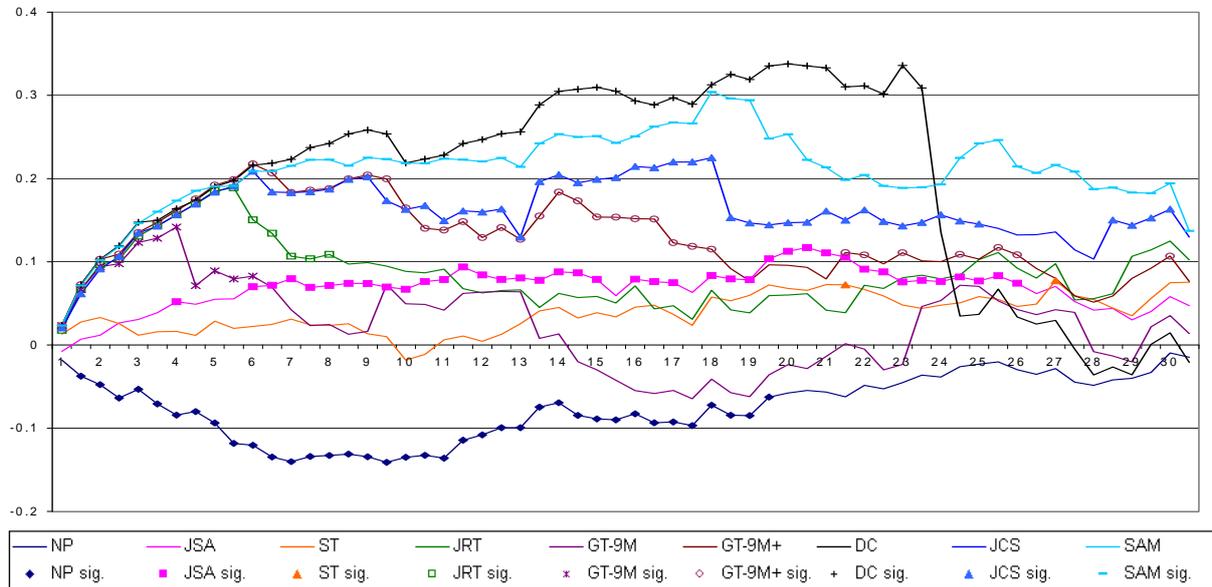


Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.). The outcome variable sums up all benefits and earnings from subsidised and unsubsidised employment.

IB.2 Inter-programme comparisons for selected outcome variables

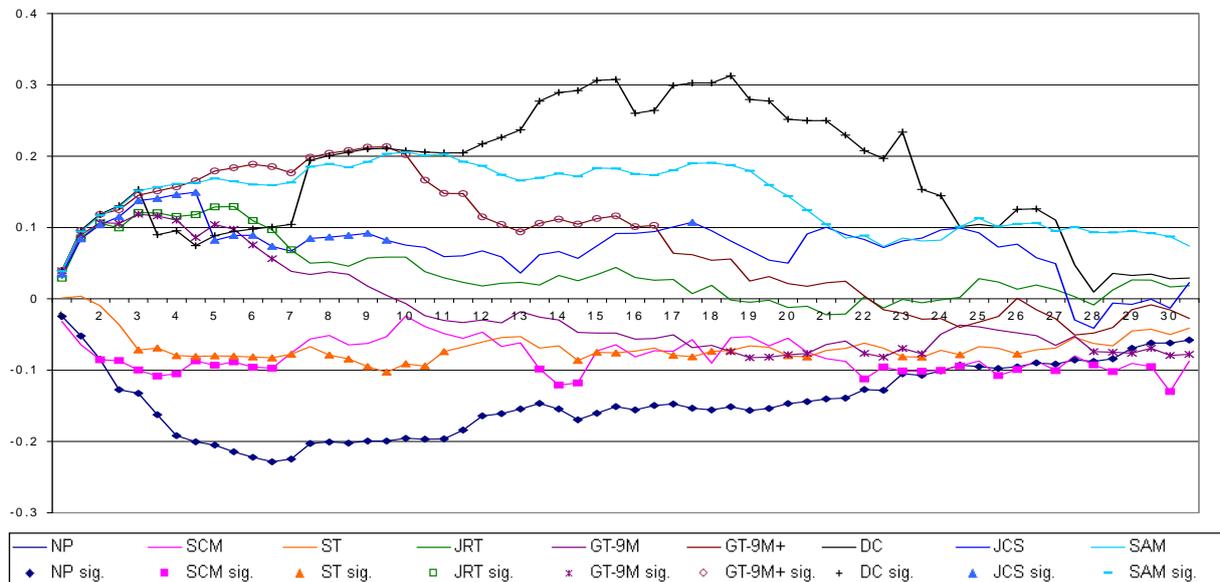
IB.2.1 Unsubsidised employment

Figure IB.6: Effects of participation in short combined measures (SCM): unsubsidised employment



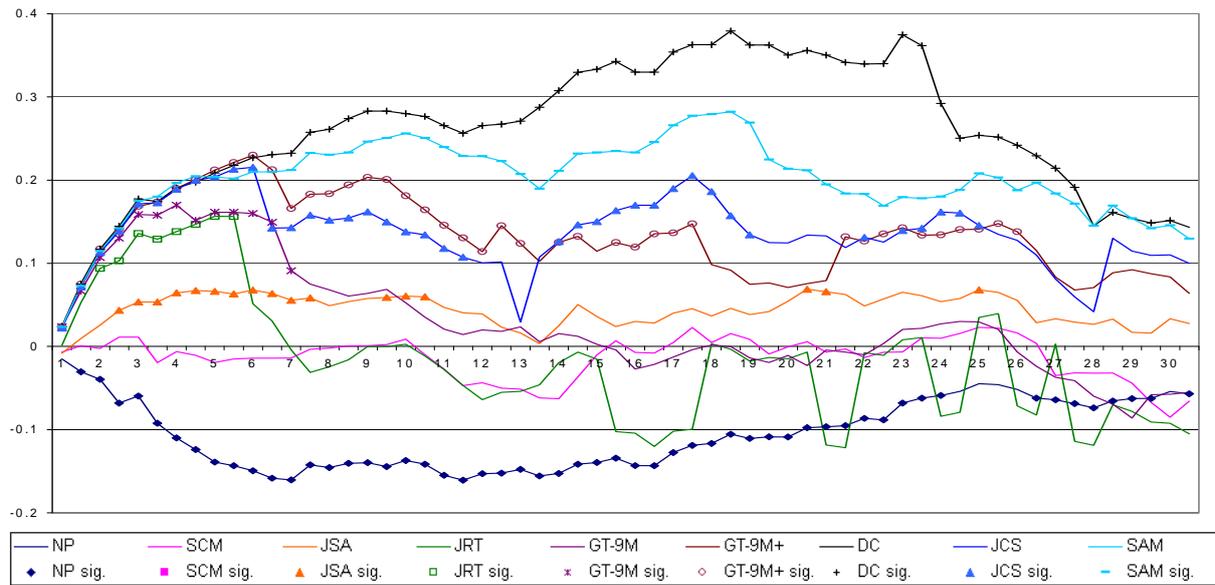
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.7: Effects of participation in jobseeker assessment (JSA): unsubsidised employment



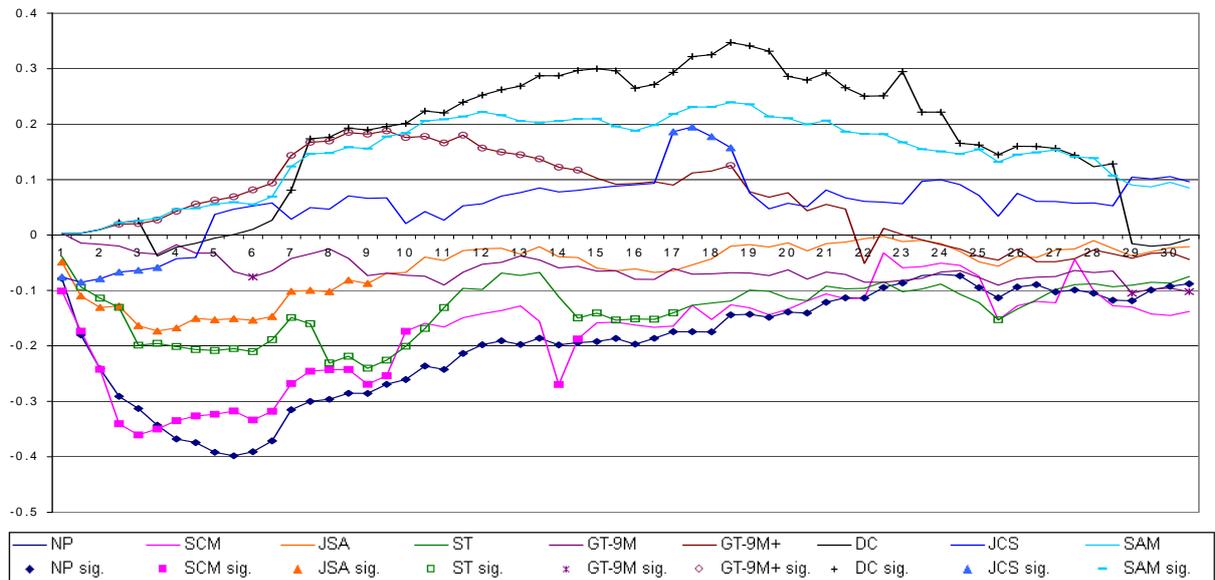
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.8: Effects of participation in short training (ST): unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

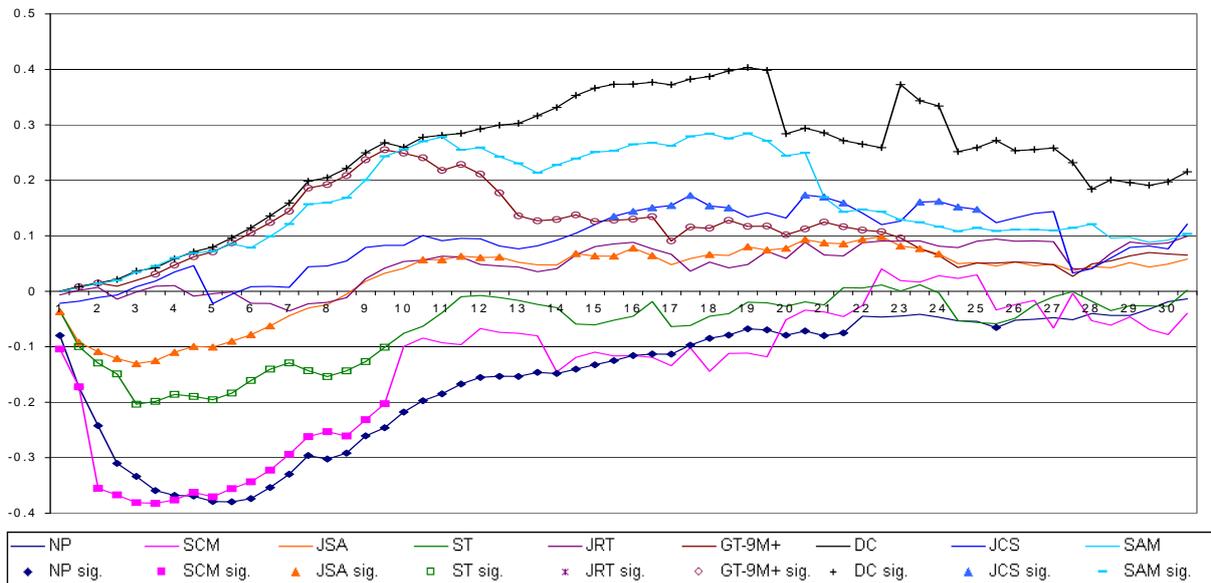
Figure IB.9: Effects of participation in job related training (JRT): unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.10: Effects of participation in general training ≤ 9 months (GT-9M): unsubsidised

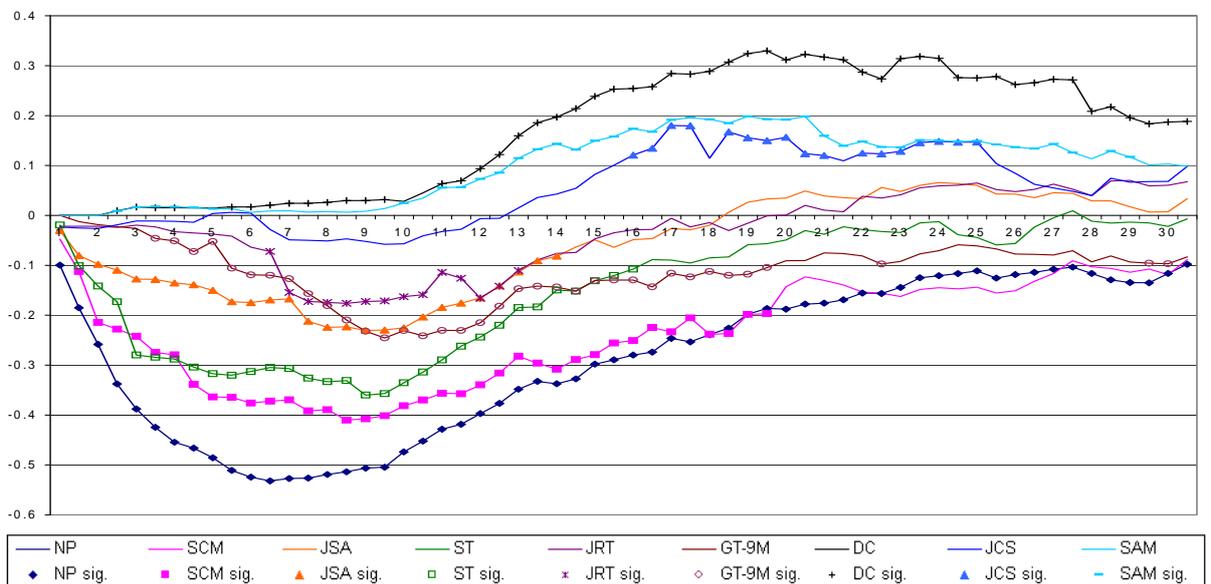
employment



Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

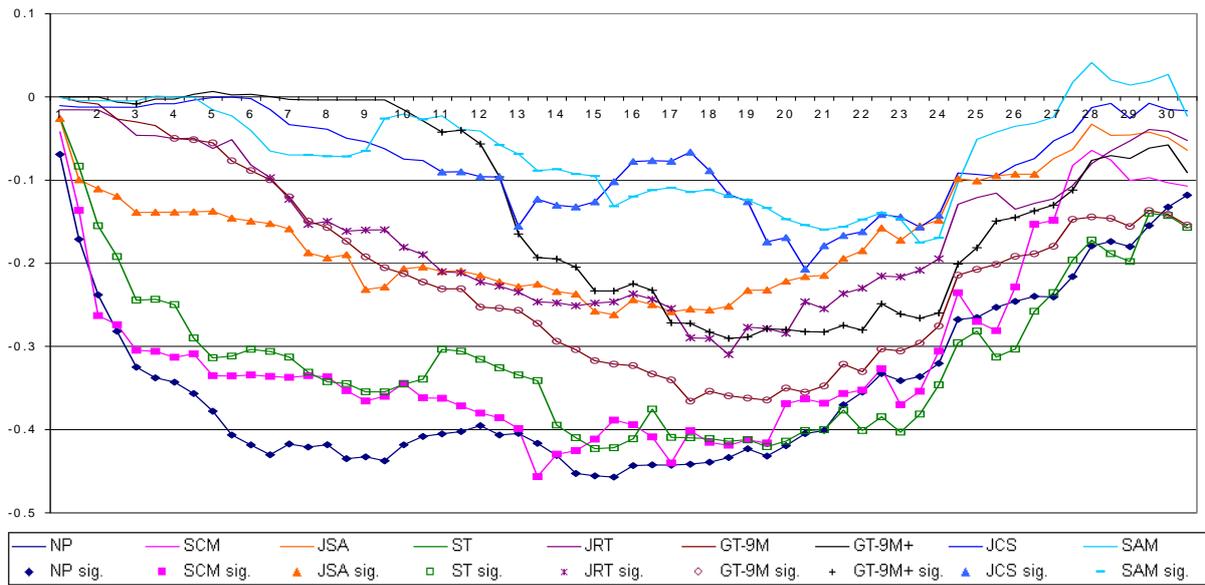
Figure IB.11: Effects of participation in general training > 9 months (GT-9M+): unsubsidised

employment



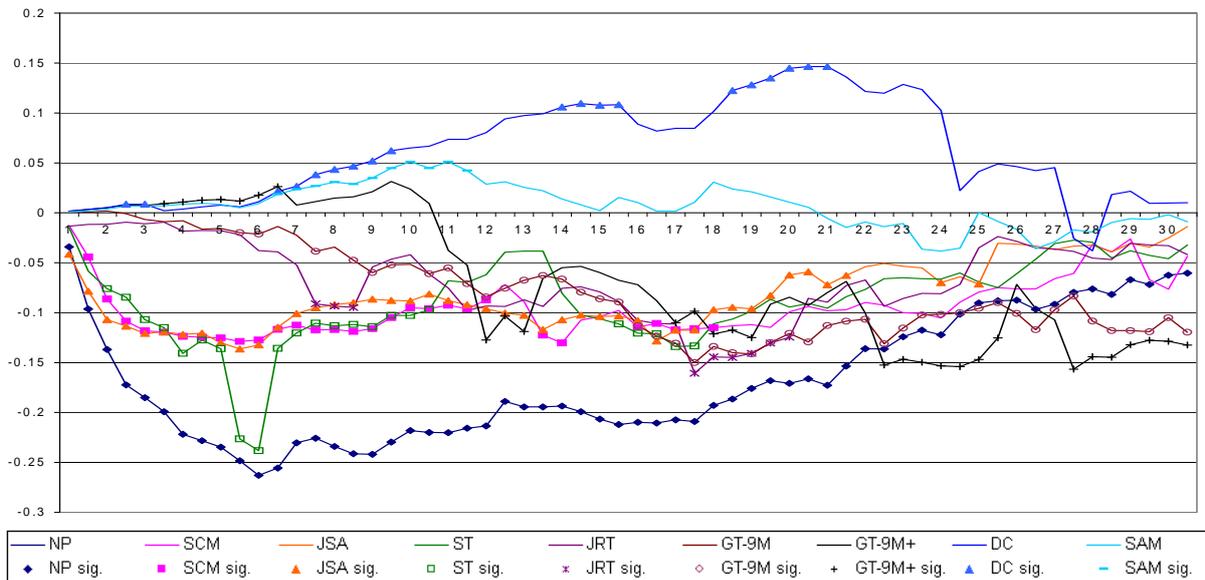
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.12: Effects of participation in a degree course (DC): unsubsidised employment



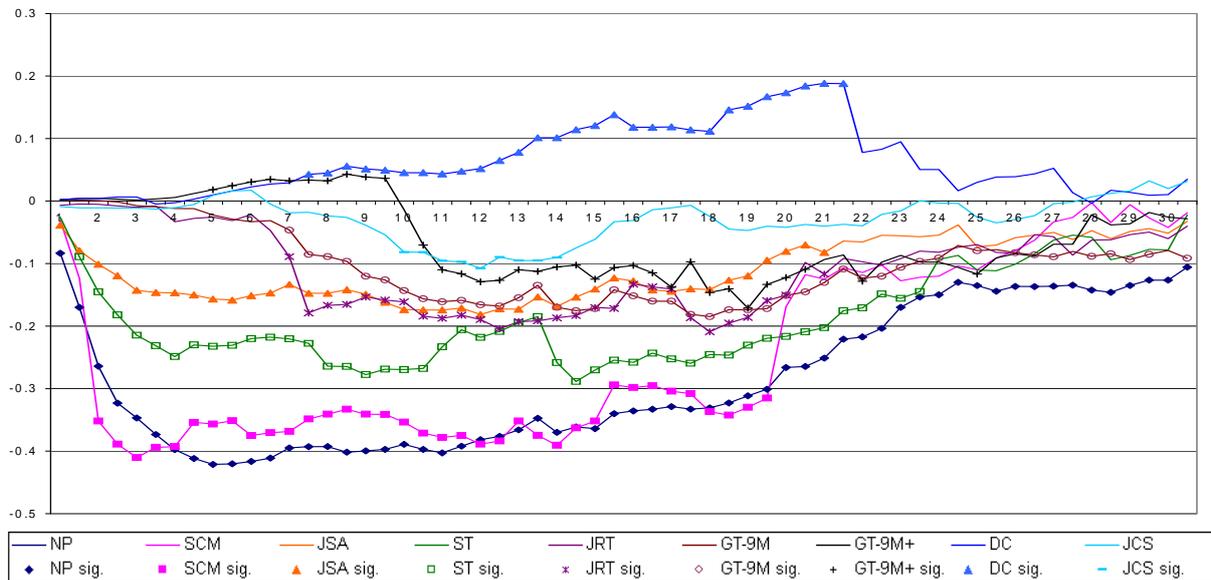
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.13: Effects of participation in a job creation scheme (JCS): unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

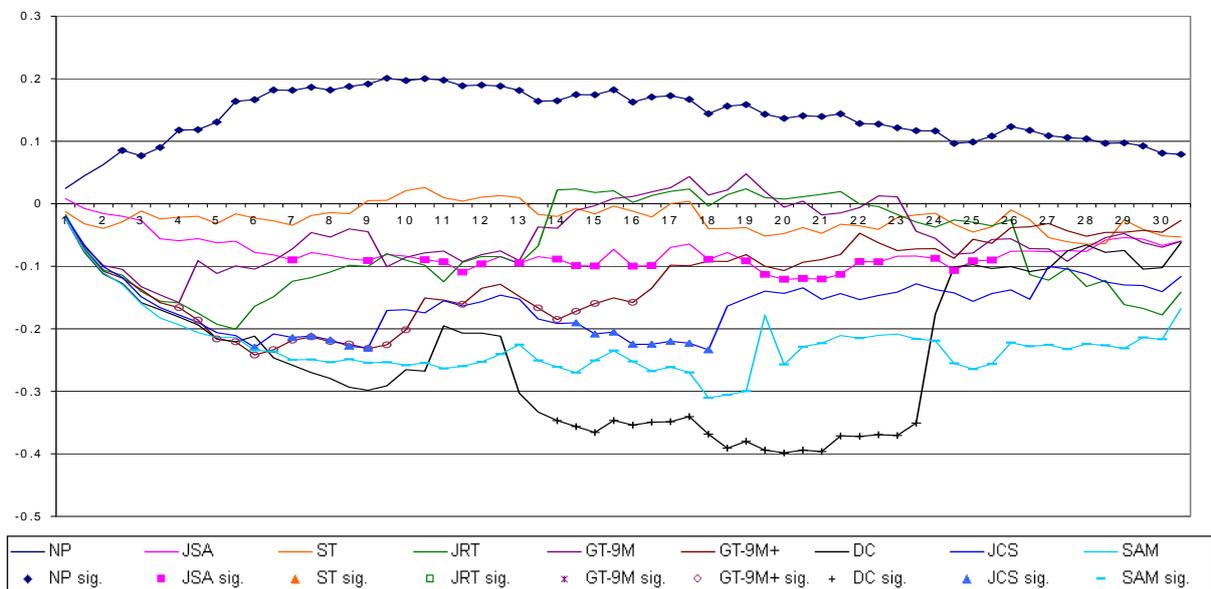
Figure IB.14: Effects of participation in structural adjustment measure (SAM): unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

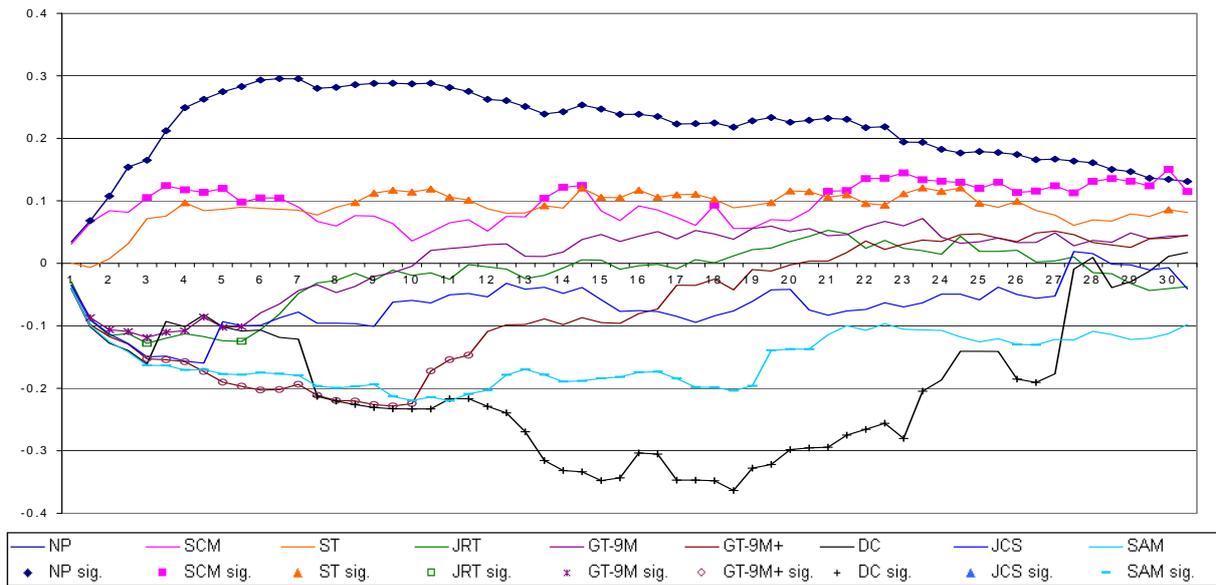
IB.2.2 Unemployment

Figure IB.15: Effects of participation in short combined measures (SCM): unemployment



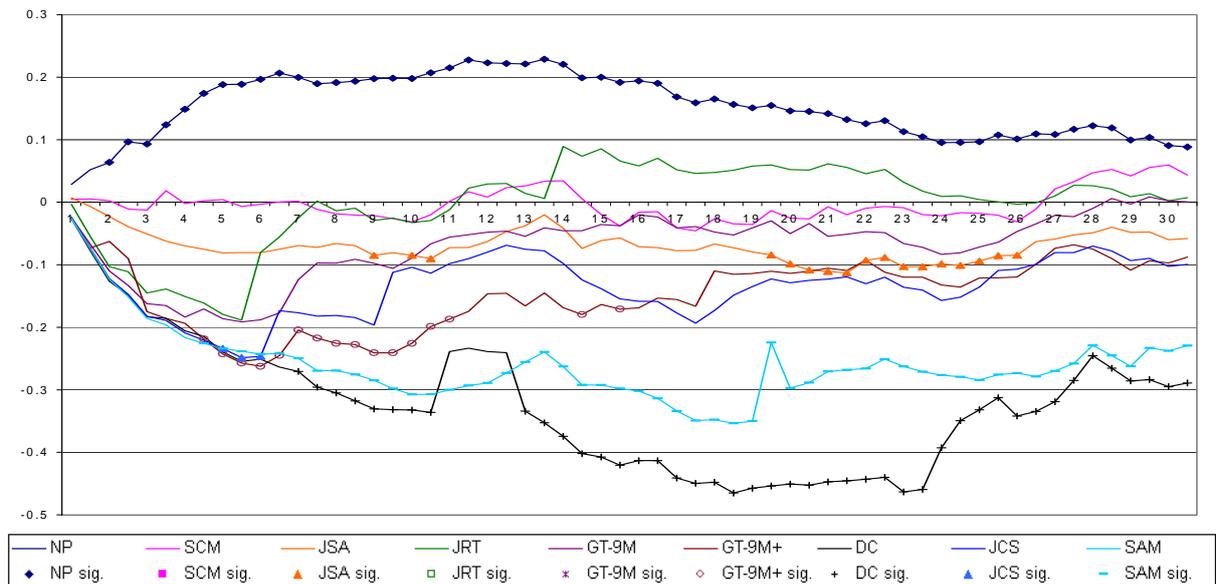
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.16: Effects of participation in jobseeker assessment (JSA): unemployment



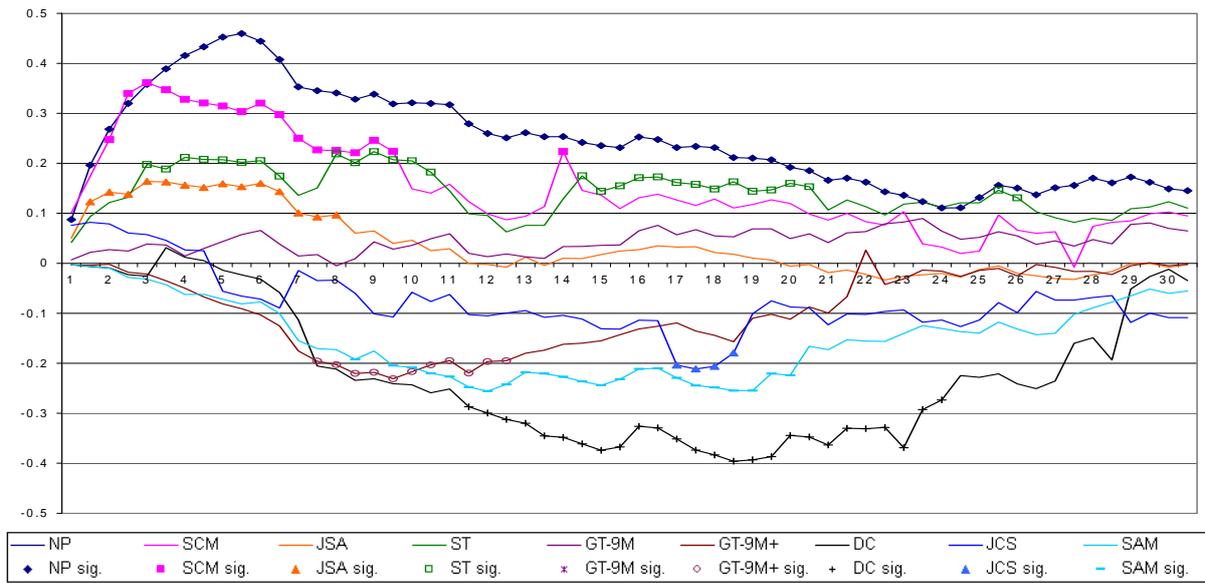
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.17: Effects of participation in short training (ST): unemployment



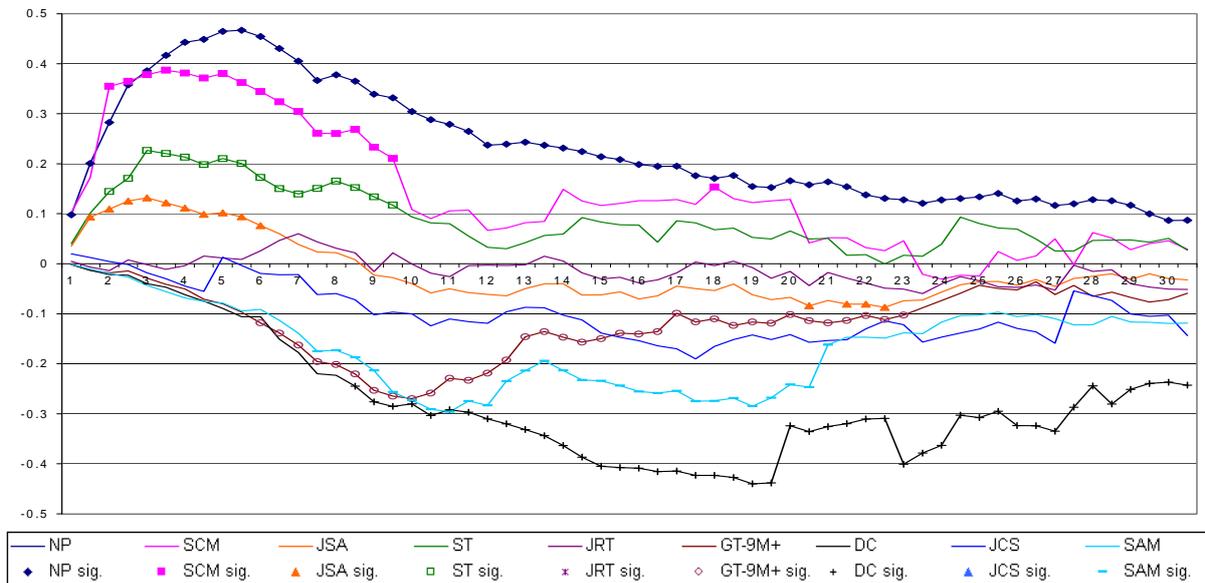
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.18: Effects of participation in job related training (JRT): unemployment



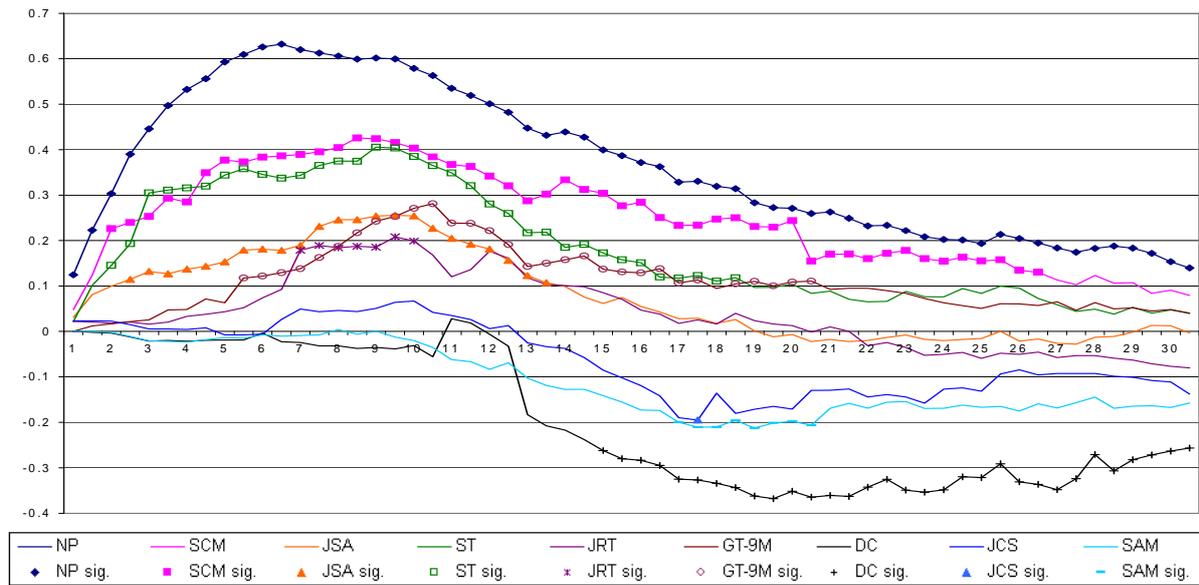
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.19: Effects of participation in general training ≤ 9 months (GT-9M): unemployment



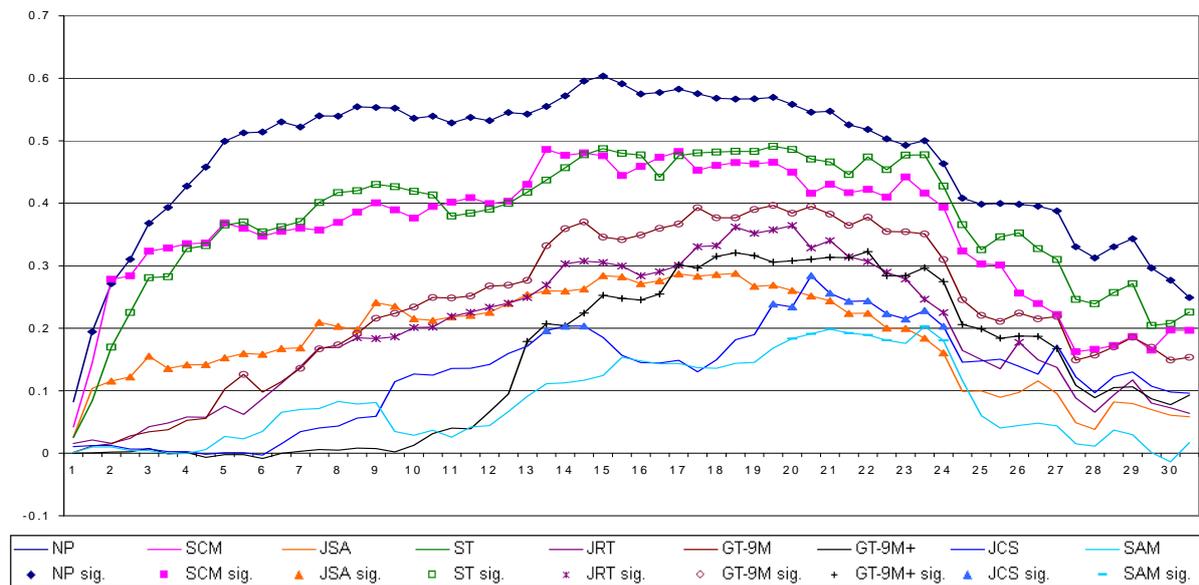
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.20: Effects of participation in general training > 9 months (GT-9M+): unemployment



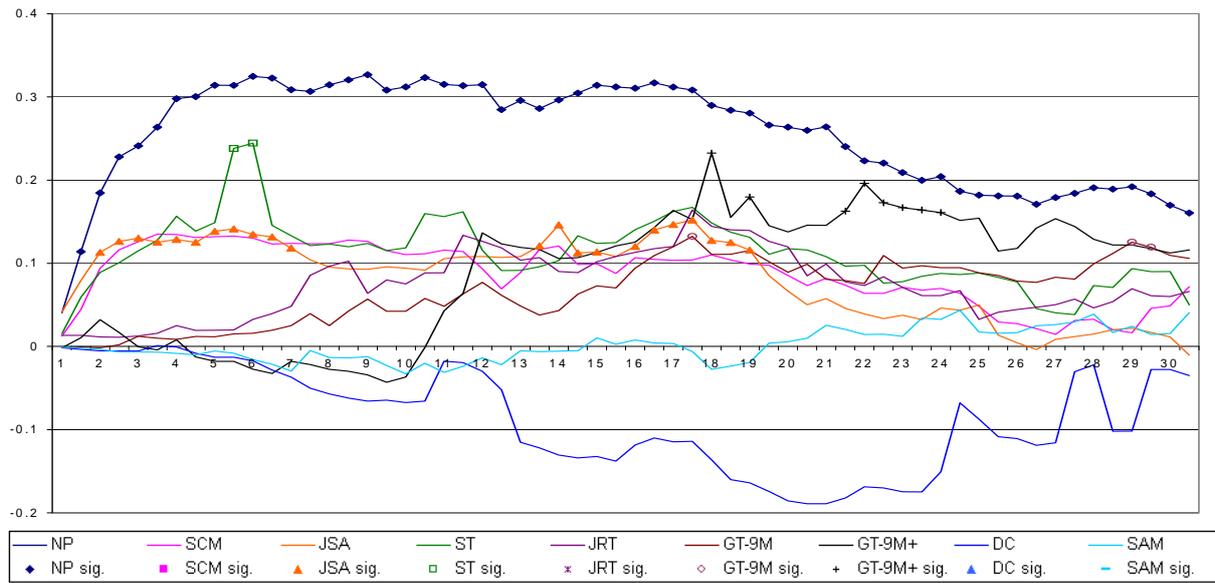
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.21: Effects of participation in a degree course (DC): unemployment



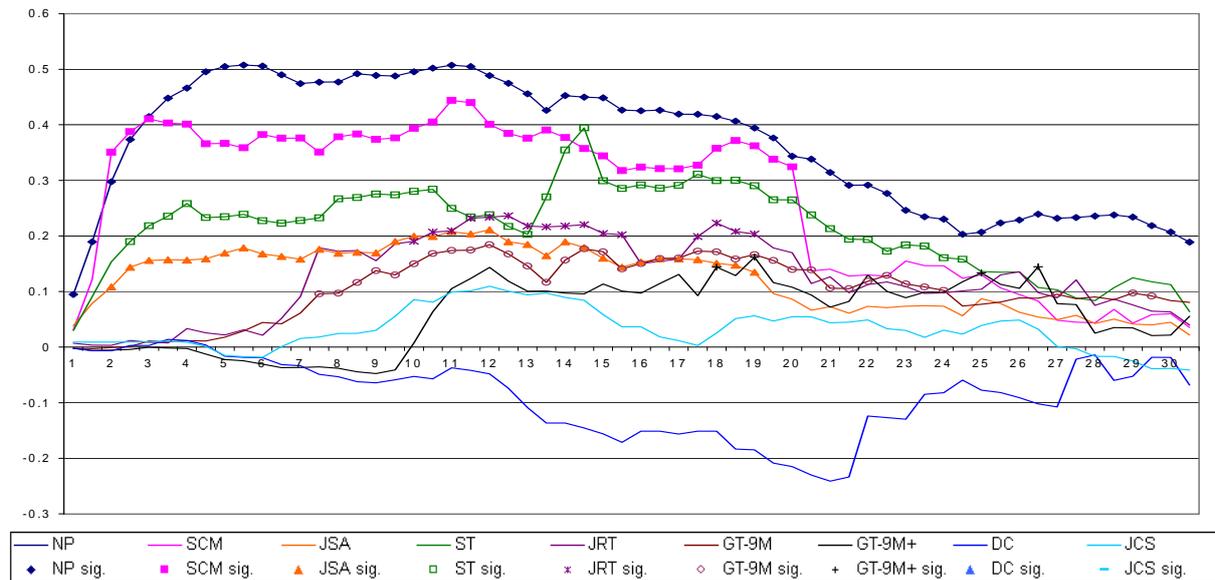
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.22: Effects of participation in a job creation scheme (JCS): unemployment



Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

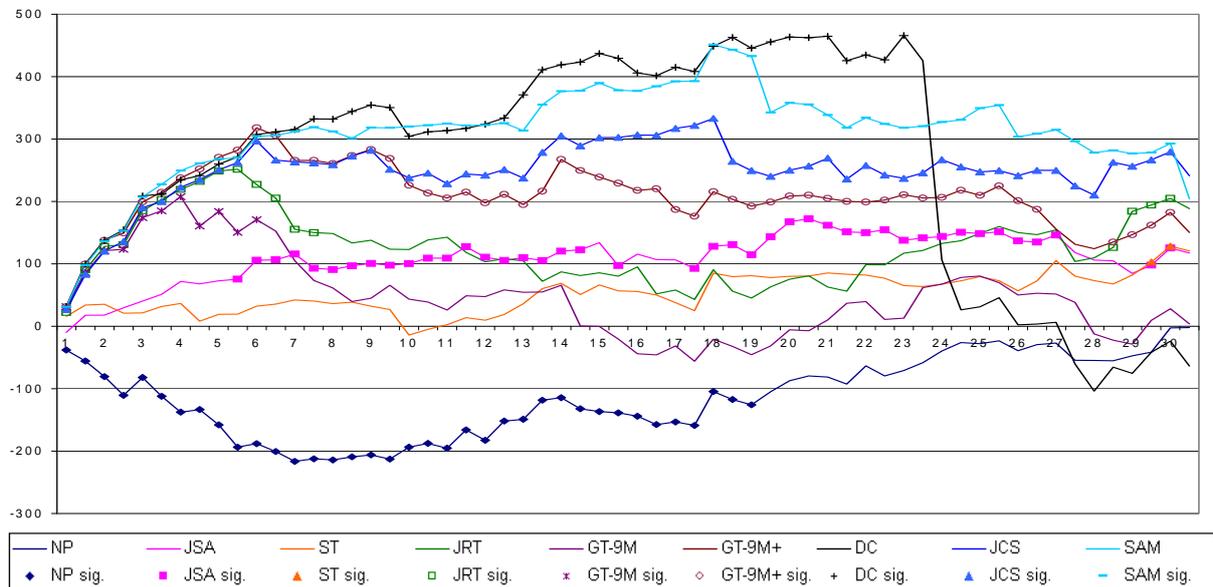
Figure IB.23: Effects of participation in structural adjustment measure (SAM): unemployment



Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in %-points. Dots indicate that the effect is significant on the 5% level (sig.).

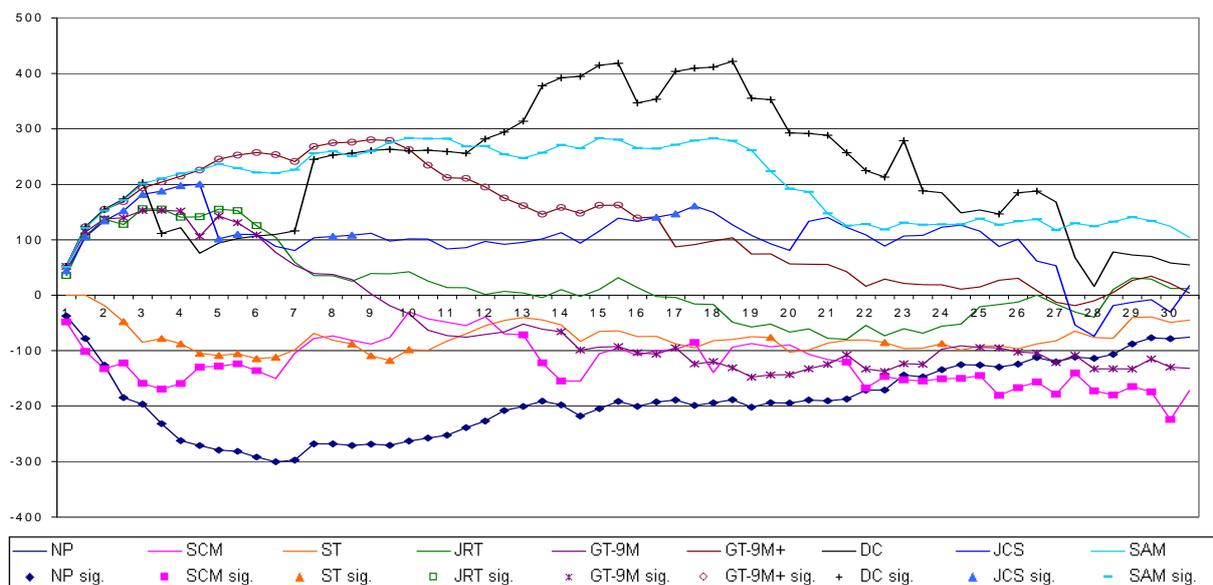
IB.2.3 Earnings from unsubsidised employment

Figure IB.24: Effects of participation in short combined measures (SCM): earnings from unsubsidised employment



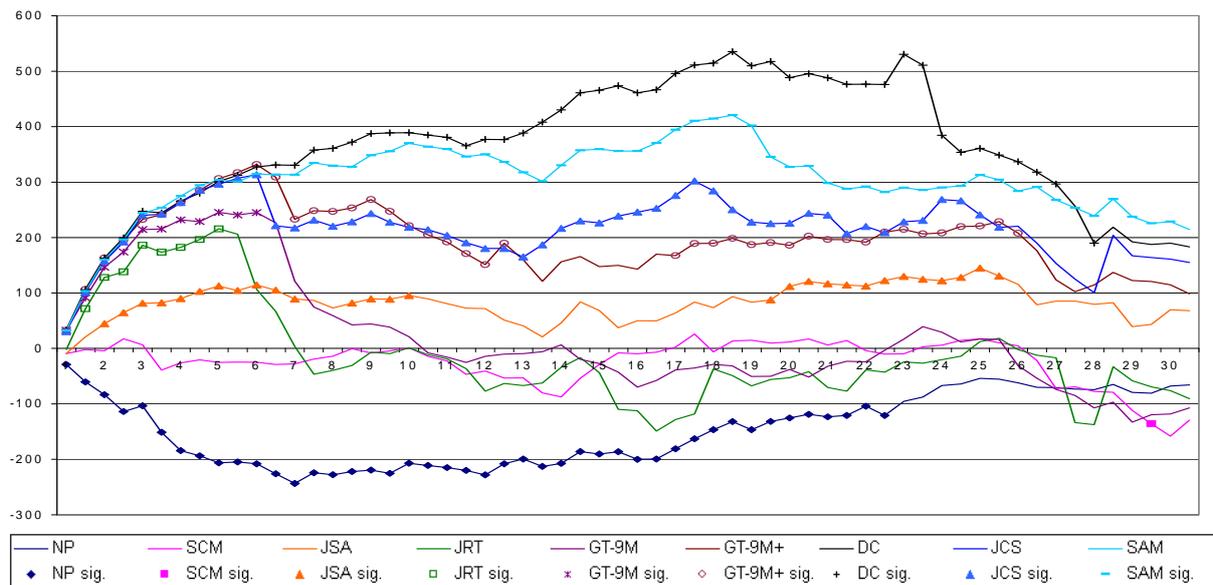
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in EUR. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.25: Effects of participation in jobseeker assessment (JSA): earnings from unsubsidised employment



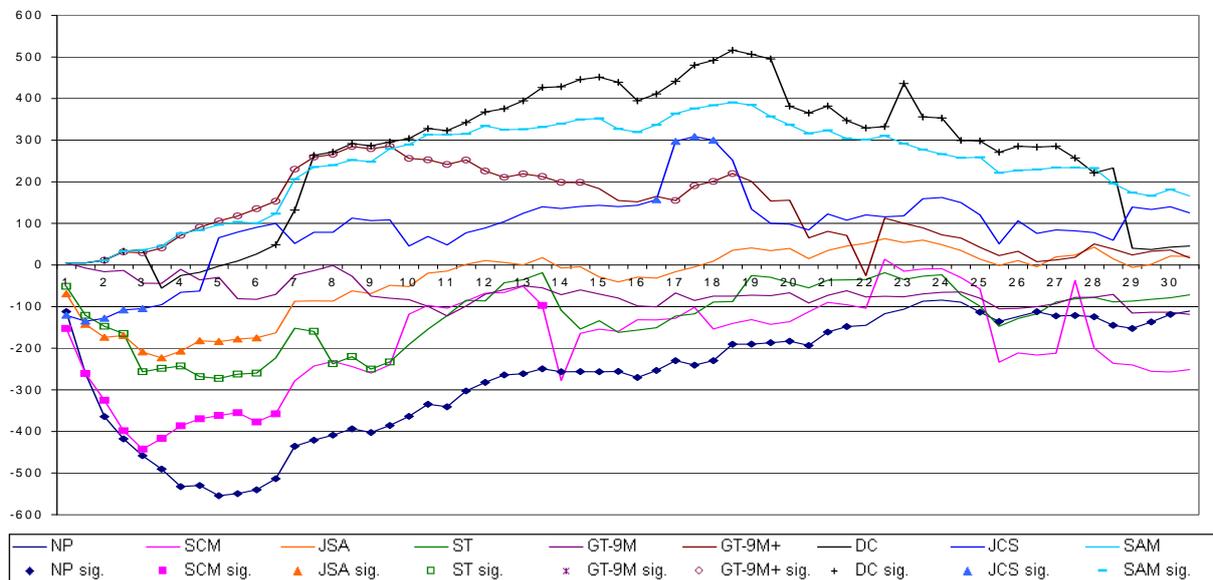
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in EUR. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.26: Effects of participation in short training (ST): earnings from unsubsidised employment



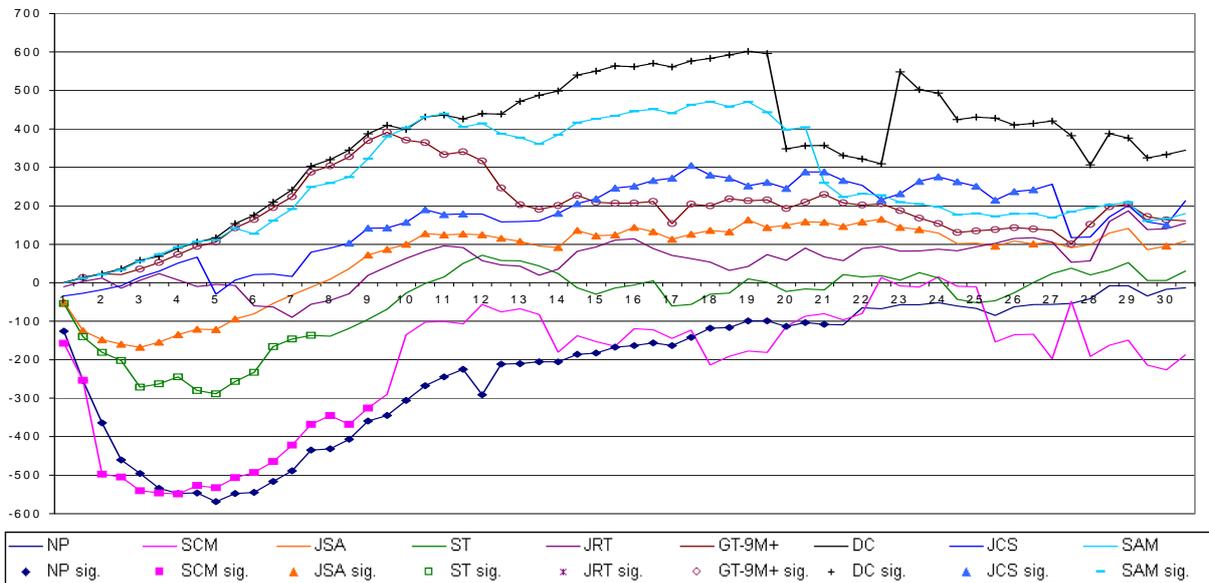
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in EUR. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.27: Effects of participation in job related training (JRT): earnings from unsubsidised employment



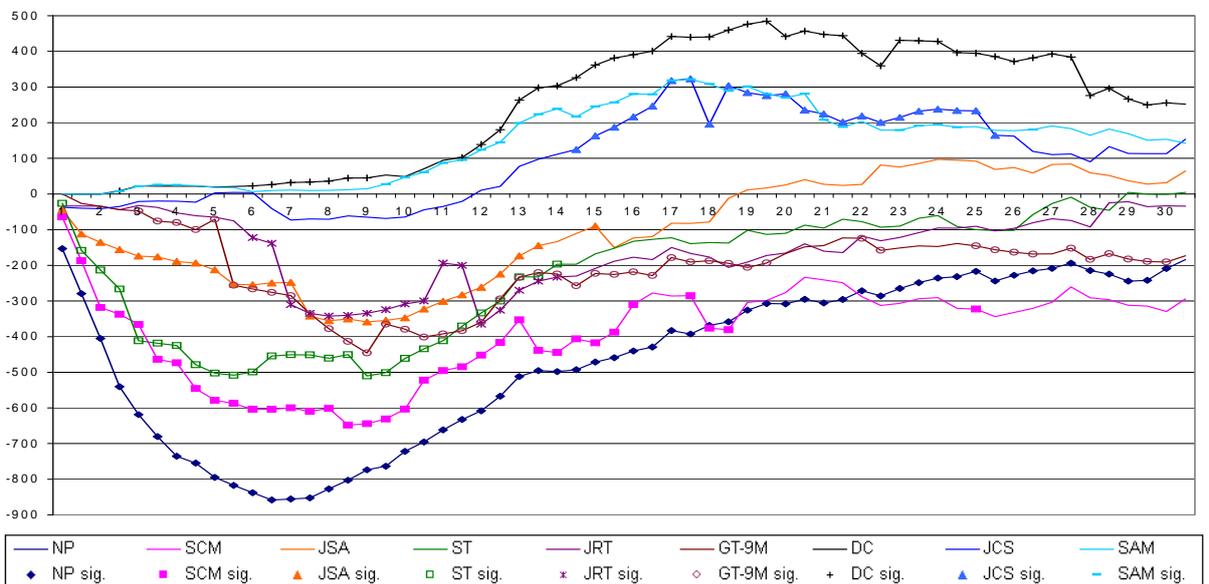
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in EUR. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.28: Effects of participation in general training ≤ 9 months (GT-9M): earnings from unsubsidised employment



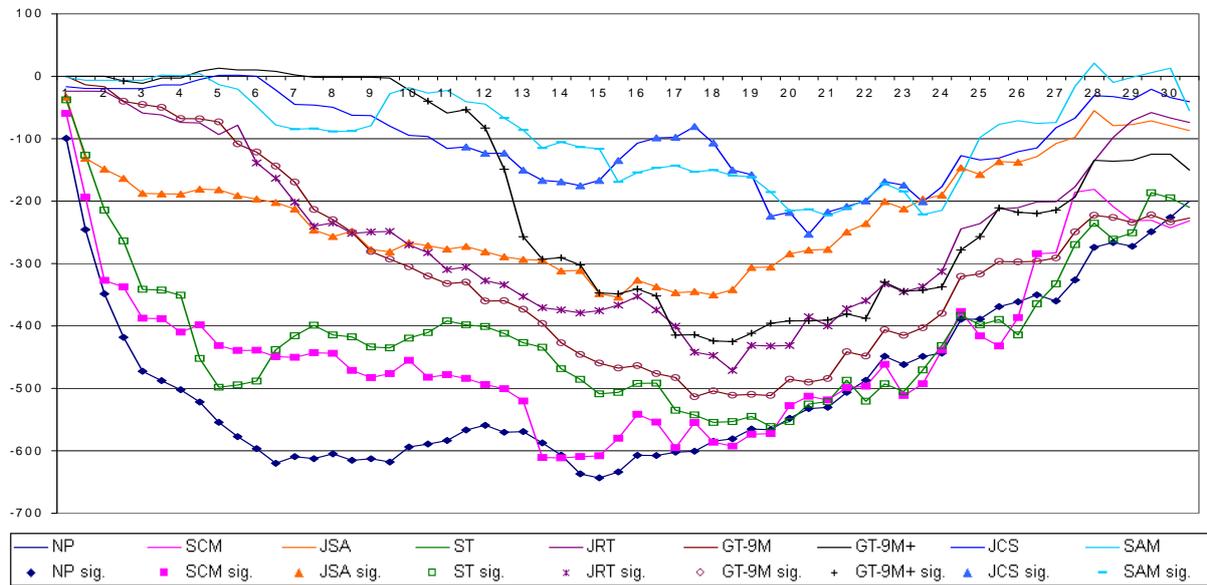
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in EUR. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.29: Effects of participation in general training > 9 months (GT-9M+): earnings from unsubsidised employment



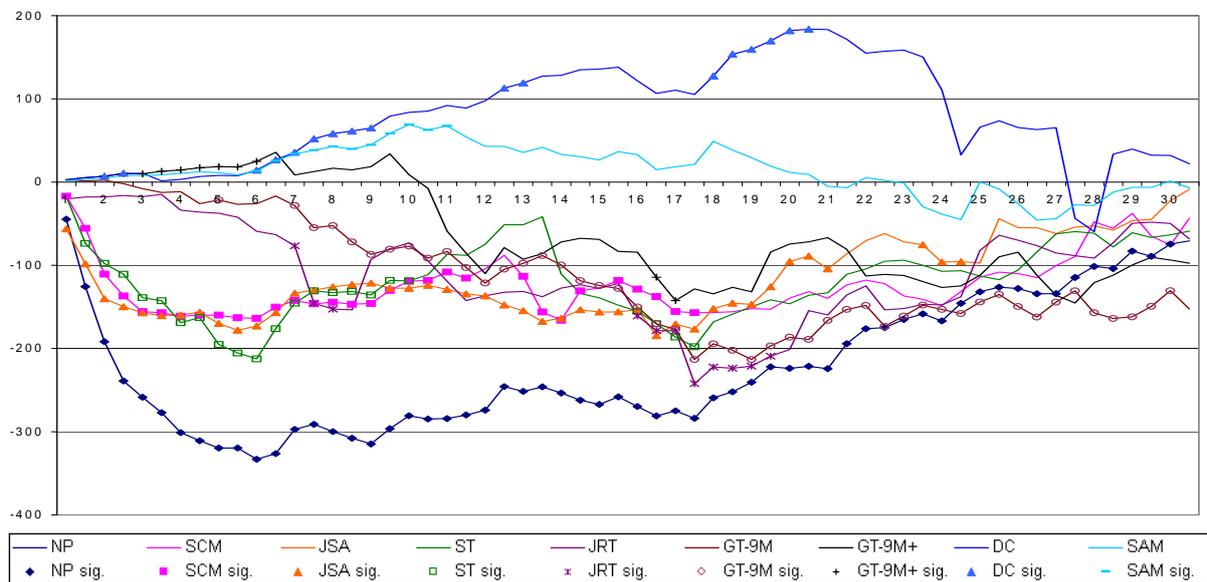
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in EUR. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.30: Effects of participation in a degree course (DC): earnings from unsubsidised employment



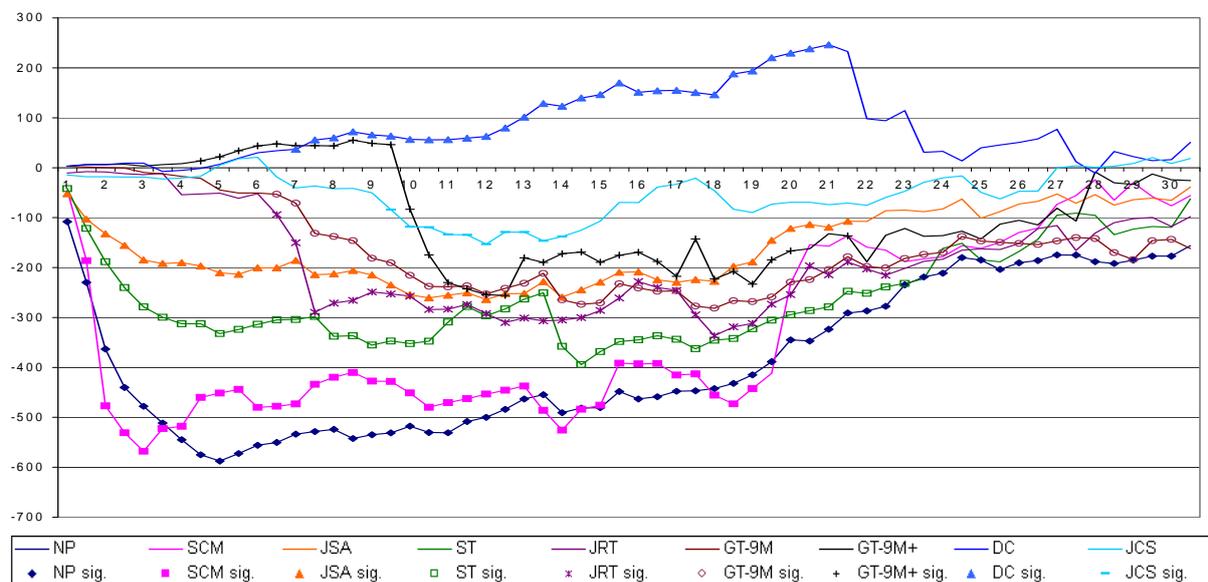
Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in EUR. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.31: Effects of participation in a job creation scheme (JCS): earnings from unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in EUR. Dots indicate that the effect is significant on the 5% level (sig.).

Figure IB.32: Effects of participation in structural adjustment measure (SAM): earnings from unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect for the population of participants in the programme in the header in EUR. Dots indicate that the effect is significant on the 5% level (sig.).

IB.2.4 Cumulated outcomes

Table IB.1: Cumulated outcomes 2.5 years after programme start

Treatment	Comparison	Employment (months)			Unemployment (months)	Programme participation (months)	Not unemployed (months)	Earnings (EUR)		
		Unsubsidised	Unsubsidised with stable earnings	Total (incl. subsidised)				From unsubsidised employment	Received benefits	Total earnings (incl. benefits)
SCM (N = 417)	NP	-2.2*	-2.0*	0.3	4.2*	5.4*	5.1*	-3388*	2703*	584
	JSA	2.1*	1.7*	2.1	-2.4	0.1	-0.3	3269*	-677	2628
	ST	1.1	1.0	0.6	-0.7	0.2	1.3	1593	14	1359
	JRT	2.6	1.4	3.2	-2.1	2.6*	0.5	3798	-126	4011
	GT ≤ 9 Months	0.8	-0.3	0.1	-1.5	1.7	-1.4	1439	-1464	-192
	GT > 9 Months	3.8*	2.7*	5.6*	-3.7	4.1*	-0.9	6237*	-1616	5501*
	DC	5.9*	3.2*	8.3*	-7.2	4.7*	-7.7	7848*	-4327	4719
	JCS	4.8*	3.2*	-3.8	-4.9	3.8*	0.0	7440*	-2692	959
	SAM	6.3*	3.6*	-5.6	-6.8	4.4*	-1.6	9302*	-5067*	-1043
JSA (N = 1081)	NP	-4.3*	-3.1*	-1.5*	6.5*	5.6*	5.5*	-5654*	3509*	-911
	SCM	-2.4	-2.0	-2.0	2.9	0.9	0.6	-3630	1420	-2089
	ST	-2.0	-0.5	-2.3	2.7	1.2	1.5	-2311	1679*	-839
	JRT	1.1	0.3	2.0	-0.6	2.6*	2.0	528	-43	839
	GT ≤ 9 Months	-0.5	-0.3	0.2	0.2	2.9*	0.8	-1410	-359	-1424
	GT > 9 Months	2.3*	1.6*	3.5*	-2.1	3.6*	-0.6	3732*	-1670	2577
	DC	5.2*	2.5*	7.3*	-5.9	4.1*	-5.6	6715*	-4259	3536
	JCS	2.2	0.7	-5.8*	-2.0	3.7*	0.2	2940	-1582	-1992
	SAM	4.3*	2.0*	-9.1*	-4.7	4.6*	-2.7	6058*	-4507*	-4405
ST (N = 551)	NP	-3.1*	-2.7*	0.1	4.6*	5.4*	4.2*	-4370*	2555*	-262
	SCM	-0.4	-0.9	0.7	-0.1	-0.3	-0.3	-734	-296	-476
	JSA	1.3	1.2	1.5	-2.1	-0.6	-1.9	2496	-1475	1063
	JRT	-0.5	0.4	1.1	-0.1	2.3	-2.0	-360	762	1156
	GT ≤ 9 Months	0.9	0.3	2.1	-2.1	2.8*	-0.5	599	-956	234
	GT > 9 Months	4.0*	2.7*	6.3*	-4.4	4.0*	-0.1	5773*	-2365	4489
	DC	7.8*	4.3*	10.7*	-9.7	4.6*	-6.4	10841*	-7093*	5197
	JCS	4.1*	1.8	-5.3	-4.0	3.5*	-2.4	6486*	-2487	25
	SAM	6.0*	3.5*	-6.3	-7.8*	4.5*	-2.7	9083*	-5025*	-1309

To be continued.

Table IB.1: Cumulated outcomes 2.5 years after programme start - continued

Treatment	Comparison	Employment (months)			Unemployment (months)	Programme participation (months)	Not unemployed (months)	Earnings (EUR)		
		Unsubsidised	Unsubsidised with stable earnings	Total (incl. subsidised)				Unsubsidised employment	Received benefits	Total earnings (incl. benefits)
JRT (N = 323)	NP	-5.8*	-3.7*	-3.7*	7.3*	2.6*	3.2*	-7909*	3776*	-3181
	SCM	-5.2	-3.4	-5.0	4.5	-0.3	-1.0	-5600	1968	-3659
	JSA	-1.8	0.1	-2.9*	1.1	-2.5*	-2.5	-998	486	-928
	ST	-4.0*	-1.3	-5.6*	4.2	-1.6	-1.5	-3684	2007	-2619
	GT ≤ 9 Months	-1.9	-1.2	-1.5	1.3	0.6	-0.6	-2051	476	-1471
	GT > 9 Months	1.8	2.1*	2.7	-2.8	0.9	-1.7	3786	-1810	2337
	DC	5.2*	3.3*	7.0*	-6.5	0.8	-6.3	7934*	-5491	3291
	JCS	1.7	2.1	-6.8*	-2.3	-0.7	-1.7	2721	-1896	-2830
	SAM	4.4*	2.6*	-10.0*	-4.5	1.4*	-4.0	7261*	-4218*	-3028
GT ≤ 9 Months (N = 619)	NP	-4.6*	-3.5*	-2.8*	6.9*	2.7*	3.9*	-6514*	4134*	-1478
	SCM	-4.0	-1.9	-3.8	4.2	-0.9	-1.2	-6295	1912	-4504
	JSA	0.7	0.9	-0.4	-0.5	-3.3*	-1.9	1977	-57	1462
	ST	-1.9	-0.1	-3.5*	2.6	-2.0*	-0.4	-1561	1671	-739
	JRT	1.4	0.5	1.1	-0.4	-0.9	0.8	1653	700	2347
	GT > 9 Months	3.2*	2.7*	3.3*	-3.4*	0.3	-1.5	5697*	-2081*	3709
	DC	7.2*	5.0*	8.9*	-8.2	0.6	-5.9	10968*	-6444*	5324
	JCS	2.7	1.7	-7.1*	-3.0	-0.2	-1.7	4982	-1546	-828
	SAM	4.8*	2.8*	-10.1*	-4.9	1.4*	-4.3	7925*	-4498*	-3684
GT > 9 Months (N = 538)	NP	-8.5*	-5.6*	-6.9*	11.0*	2.3*	4.8*	-13772*	6848*	-6133*
	SCM	-7.0*	-2.6	-7.8*	7.4*	-1.5	-0.4	-11670*	4215*	-8167
	JSA	-1.8	-1.7	-3.2*	2.3	-3.9*	-0.3	-2932	1264	-2424
	ST	-4.3*	-2.3*	-5.5*	5.5*	-2.1*	1.9	-6503*	3233*	-4018
	JRT	-0.9	-1.3	-1.1	1.2	-0.6	3.0	-4632	1710	-2953
	GT ≤ 9 Months	-3.4*	-2.0*	-3.5*	3.3	-0.8	1.0	-6090*	1642	-4531
	DC	5.1*	2.7*	6.5*	-5.8	1.2	-3.6	7338*	-5461	2580
	JCS	1.6	0.6	-10.8*	-1.8	-0.7	-0.1	3009	-699	-2969
	SAM	2.9*	1.0	-14.2*	-3.3	0.7	-3.5	4356*	-3727	-7369

To be continued.

Table IB.1: Cumulated outcomes 2.5 years after programme start - continued

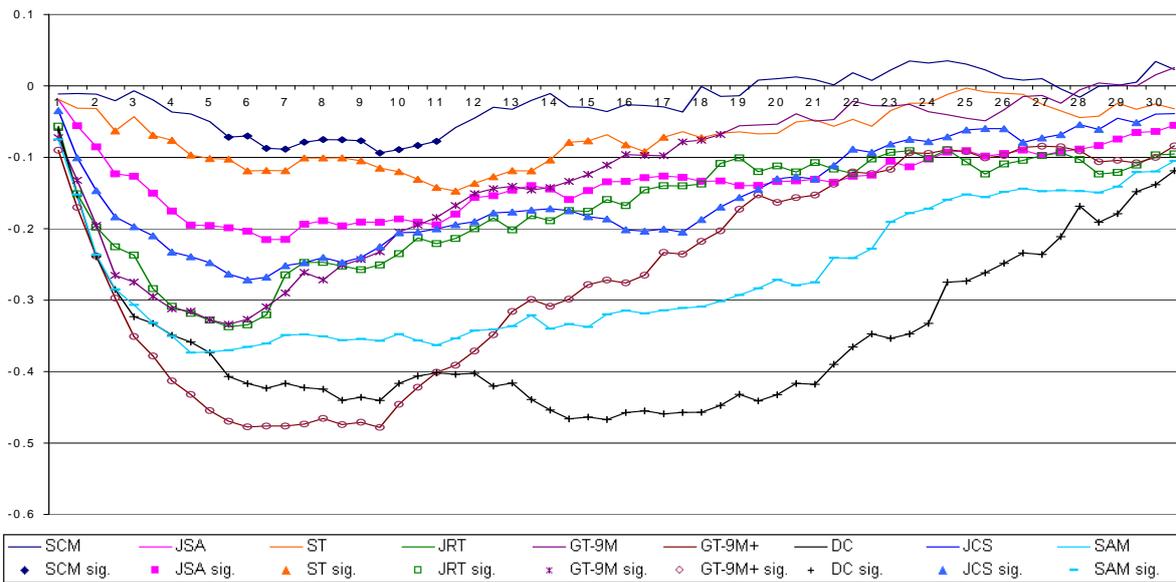
Treatment	Comparison	Employment (months)			Unemployment (months)	Programme participation (months)	Not unemployed (months)	Earnings (EUR)		
		Unsubsidised	Unsubsidised with stable earnings	Total (incl. subsidised)				From unsubsidised employment	Received benefits	Total earnings (incl. benefits)
DC (N = 170)	NP	-10.4*	-6.3*	-10.0*	14.1*	1.1*	12.1*	-14706*	8213*	-6291*
	SCM	-9.3*	-5.5*	-10.9*	10.7*	-3.8*	6.7*	-13091*	6304*	-7690
	JSA	-5.0*	-3.6*	-7.2*	5.5*	-5.3*	6.1*	-6617*	3984*	-3662*
	ST	-9.3*	-4.5*	-11.4*	11.2*	-2.9*	7.0*	-12251*	7107*	-6231
	JRT	-4.8*	-3.6*	-7.1*	5.8	-2.9*	8.0*	-7470*	3970*	-4553
	GT ≤ 9 Months	-6.3*	-4.2*	-7.8*	7.0*	-1.8*	7.8*	-9059*	4749*	-5009*
	GT > 9 Months	-3.8*	-2.0*	-4.3*	4.2	-0.6	6.0*	-5547*	3087*	-2697
	JCS	-2.3	-0.9	-13.3*	3.7	-2.0	7.2*	-2966	2079	-5969
	SAM	-1.9*	-1.7	-18.5*	2.4	0.0	3.1	-2628	-380	-10921*
JCS (N = 577)	NP	-5.0*	-3.2*	5.9*	7.7*	2.2*	6.8*	-6634*	5261*	3284*
	SCM	-2.9	-1.6	5.6*	2.6	-2.3	2.6	-3701	3012	2673
	JSA	-2.5*	-1.9*	4.8*	2.5	-3.7*	-0.3	-3484*	1900	1444
	ST	-2.6	-1.7	5.8*	3.4	-1.7	3.3	-3522	3077	2903
	JRT	-2.0	-1.4	6.7*	2.2	-0.7	0.2	-3271	2328	2534
	GT ≤ 9 Months	-2.3*	-1.7*	6.9*	2.0	0.3	1.3	-3345*	1546	2068
	GT > 9 Months	-2.0	-0.9	8.4*	2.6	1.2*	-1.3	-1880	1762	4166
	DC	1.8	1.0	12.3*	-2.5	1.5	-7.3	2365	-1102	5698
	SAM	0.2	-0.2	-2.0	0.0	1.0	-1.8	417	-450	-1167
SAM (N = 430)	NP	-8.6*	-5.2*	7.2*	11.0*	1.6*	8.1*	-11501*	7909*	3585
	SCM	-7.3*	-3.9	6.0	8.0*	-2.5	2.9	-9711*	5585*	1626
	JSA	-3.3*	-1.7*	9.0*	3.7*	-4.0*	1.9	-4846*	2773*	3553
	ST	-5.6*	-3.6*	5.2	6.4*	-2.0	3.8	-7744*	5169*	2385
	JRT	-3.2*	-2.5	10.7*	3.7	-1.4	4.4	-5583*	4058*	4654
	GT ≤ 9 Months	-3.1*	-1.9*	10.6*	3.1	-1.5*	4.4*	-4921*	3555*	4967*
	GT > 9 Months	-1.8	-1.2	12.2*	1.8	-0.6	1.8	-2820	1554	5112
	DC	1.9*	0.7	17.4*	-2.6	0.2	-2.9	2370*	536	9954*
	JCS	-0.8	-0.5	2.9	0.9	-1.5*	2.4	-1523	1828	2277

Note: Numbers in *italics* indicate significance on the 10% level, **bold** numbers on the 5% level, and * on the 1% level.

IC Sensitivity analysis

IC.1 Stricter common support

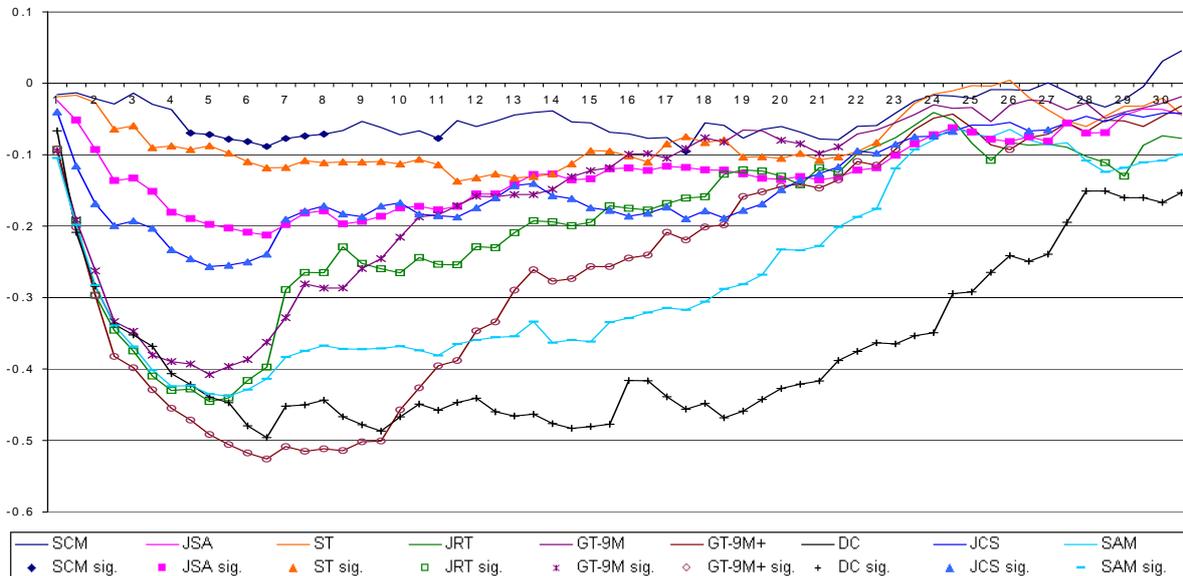
Figure IC.1: Effects of programme participation compared to nonparticipation on unsubsidised employment (%-points) if the common support is defined as the intersection of the common supports of one programme against all comparisons



Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

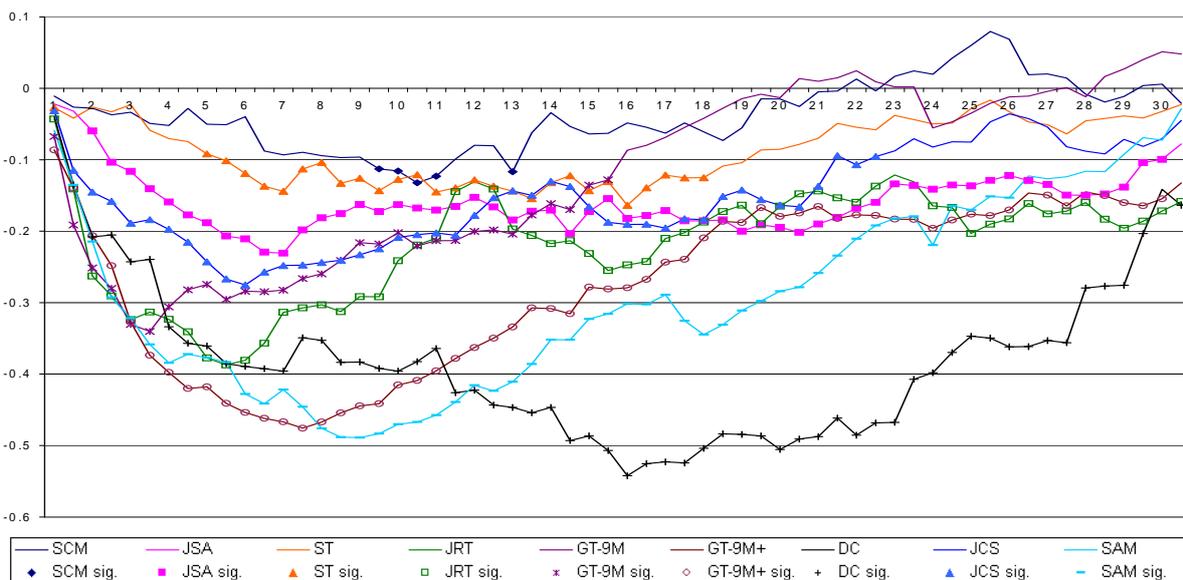
IC.2 Gender differences in the effects of training

Figure IC.2: Effects of programme participation compared to nonparticipation on unsubsidised employment (%-points) for men



Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

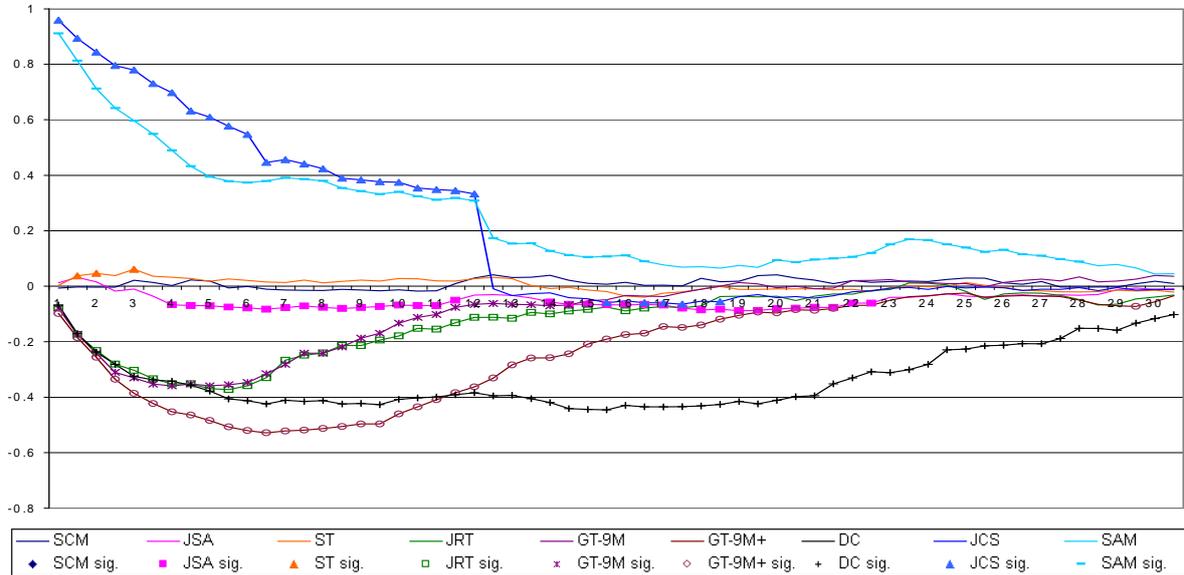
Figure IC.3: Effects of programme participation compared to nonparticipation on unsubsidised employment (%-points) for women



Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

IC.3 Effects on total employment

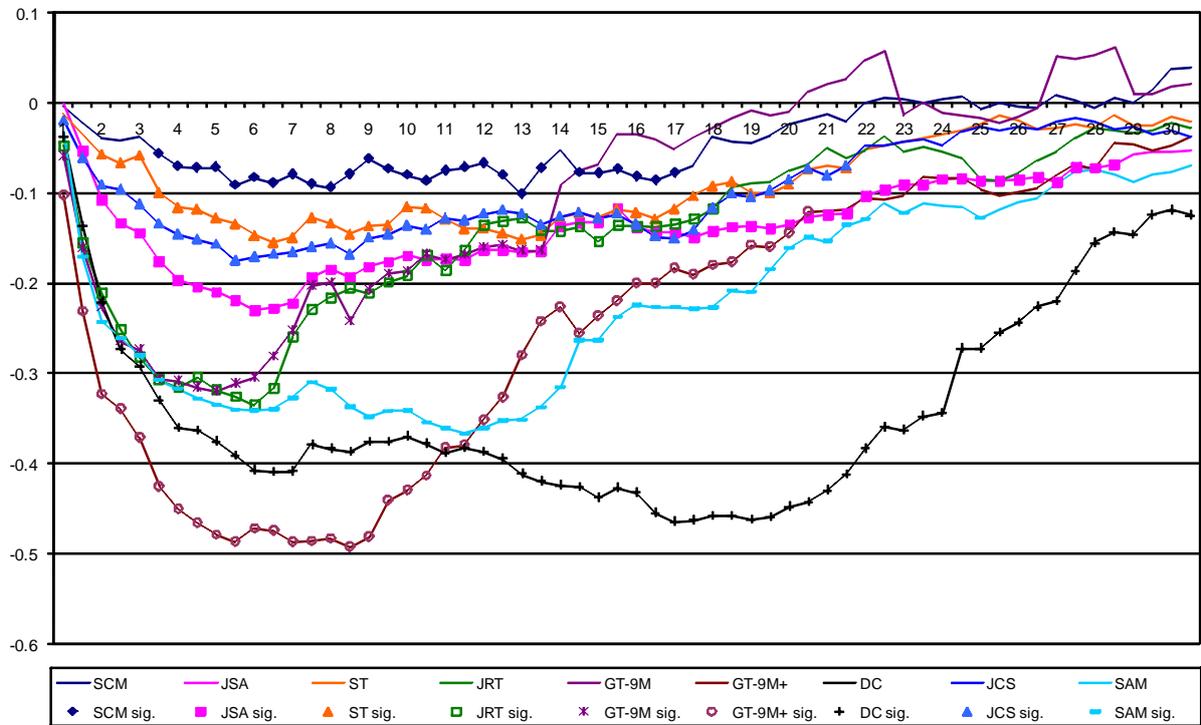
Figure IC.4: Effects of programme participation compared to nonparticipation: total (subsidised and unsubsidised) employment



Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

IC.4 Simulation of random start dates for nonparticipants

Figure IC.5: Effects of programme participation compared to nonparticipation: unsubsidised employment

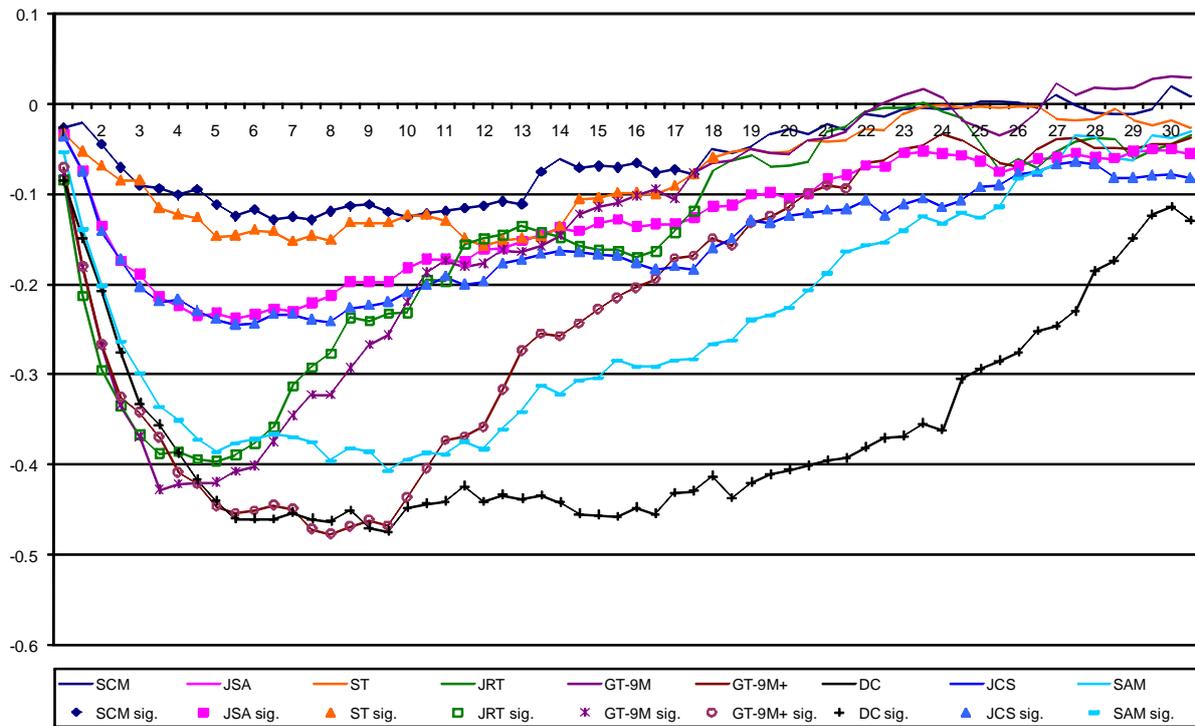


Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

IC.5 Reduction of treatment window

IC.5.1 Treatment window of 24 months after programme start

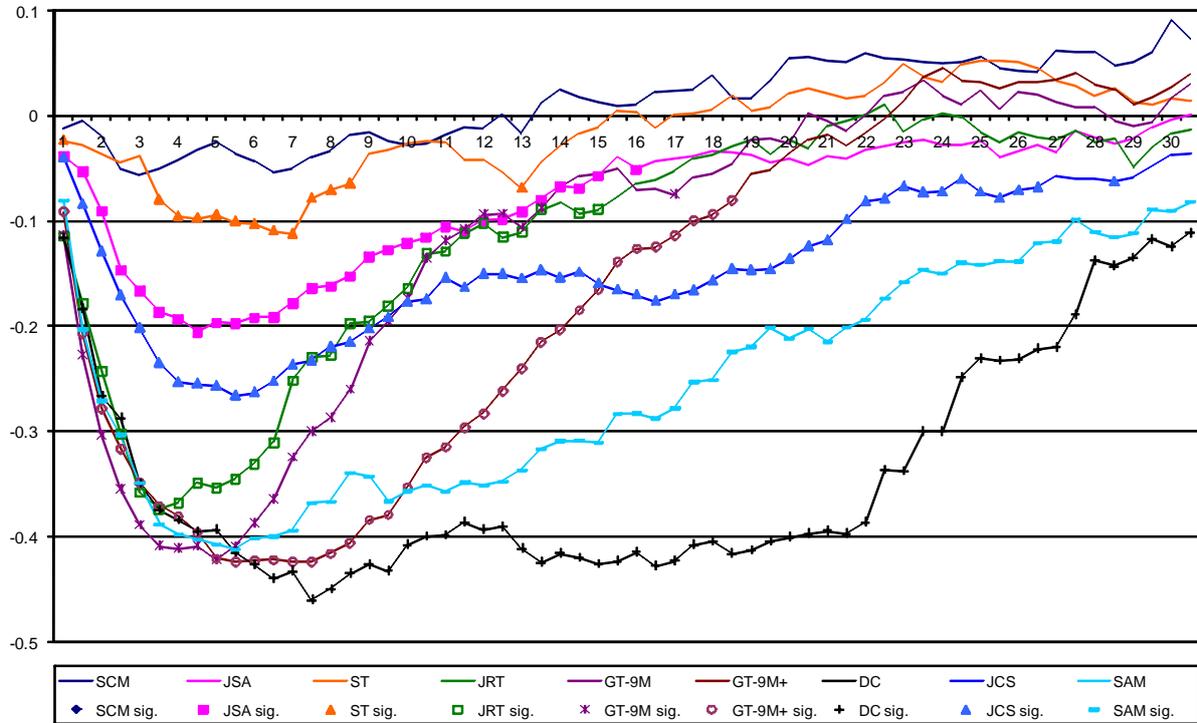
Figure IC.6: Effects of programme participation compared to nonparticipation: unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

IC.5.2 Treatment window of 12 months after programme start

Figure IC.7: Effects of programme participation compared to nonparticipation: unsubsidised employment

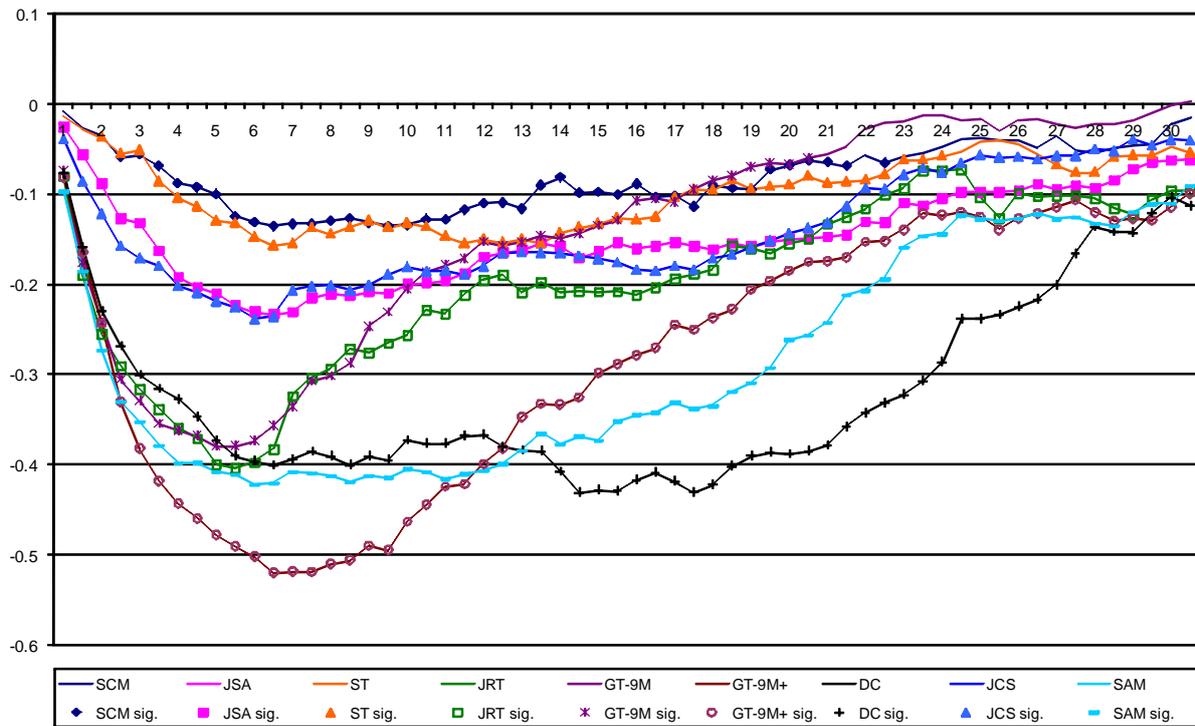


Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

IC.6 Effect of additional covariates

IC.6.1 Additional variables excluded without adjusting probit models

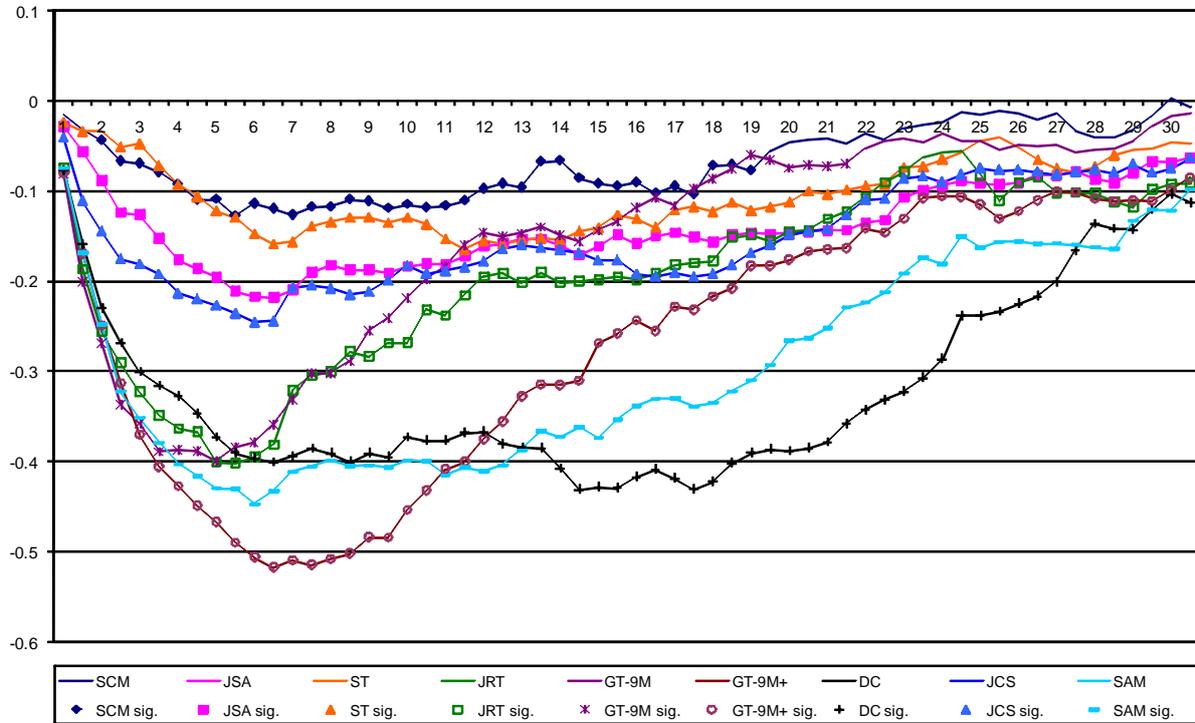
Figure IC.8: Effects of programme participation compared to nonparticipation: unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

IC.6.2 Additional variables excluded with adjusting probit models

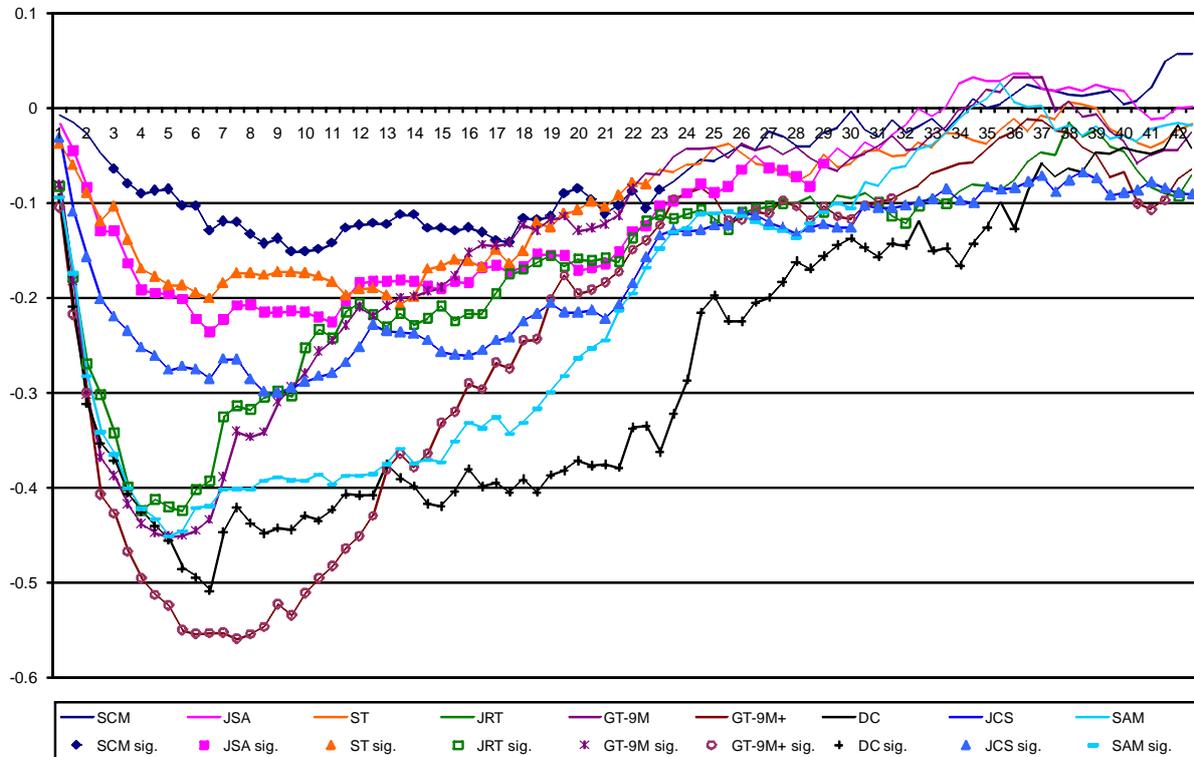
Figure IC.9: Effects of programme participation compared to nonparticipation: unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).

IC.7 Effects up to 3.5 years after programme start for the cohort 2000-2001

Figure IC.10: Effects of programme participation compared to nonparticipation: unsubsidised employment



Note: Abscissa: Months after programme start. Ordinate: Effect in %-points. Each line represents the respective population of participants, which may differ for each programme. Dots indicate that the effect is significant on the 5% level (sig.).