KIDS OR COURSES? GENDER DIFFERENCES IN THE EFFECTS OF ACTIVE LABOR MARKET POLICIES

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Abstract

We investigate active labor market programs in Austria. We find only small effects, if any, for most of the programs. However, the programs may have unintended consequences for women. In particular for younger women, a key effect of the programs and one reason for the male-female effect differential that is observed in the literature is to reduce or postpone pregnancies and to increase their attachment to the labor force. Furthermore, the variables capturing pregnancies and times of parental leave play a key role in removing selection bias.

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1 Introduction

There seems to be a consensus emerging that women benefit more from labor market programs than men, e.g. see the surveys by Bergemann and van den Berg (2006) for Europe and Heckman, LaLonde, and Smith (1999) for the US. Our comprehensive evaluation of the Austrian active labor market programs shows that the effect differentials disappear once information on pregnancies and parental leave is incorporated or once the analysis is focused on unemployed with age above 40 years, where pregnancies and parental leaves are hardly an issue anymore.

Many recent European studies have emphasized the role of effect heterogeneity on the program level.¹ In terms of participant heterogeneity Puhani (1999) and Kluve, Lehmann, and Schmidt (1999, 2008) find sex specific program effects for Poland. Friedlander, Greenberg, and Robins (1997) and Heckman, LaLonde, and Smith (1999) feature sex differences for the US and other western economies. Lechner, Miquel, and Wunsch (2009) look at employment effects for certain subgroups of participants in West Germany. They find effect heterogeneity with respect to residence, previous occupation, and sex. For East Germany, Lechner, Miquel, and Wunsch (2007) find that for some training programs the employment effects for women were much larger than for men. They attributed this heterogeneity to specifics of the selection process that resulted in a higher probability of men being trained with skills for the construction sector which then collapsed. However, such a precise identification of the reasons for gender differences is not always possible and the puzzle remains in many other studies. Bergemann and van den Berg (2006) survey 15 studies on effect differentials for men and women in Europe. 13 of those studies report effect premia for women. Heckman, LaLonde, and Smith (1999) survey 16 studies for the US and also provide broad evidence for effect premia for women in terms of earnings. The key explanations that are put forward are gender differences with respect to labor supply elasticity, eagerness to learn, responsiveness

to wage changes, and with respect to the larger choice set for women, i.e. including times of parental leave in addition to work and leisure. Their overall conclusion is that labor market programs seem to work better for women in countries where the female labor force participation rate is relatively small, which is also the case in Austria.

Due to a unique and informative data base of the Austrian labor force, we show that those estimated differentials between men and women consist of two components. The first component is a *selection bias* due to the lack of controlling for the occurrence of pregnancies before or at the start of the programs, leading to more pregnancies in the group of nonparticipants than in the group of participants. Thus, estimated effects that ignore this information show biases in favor of the programs. Second, the remaining differential in the employment effect appears because program participation *postpones or reduces fertility*, which in turn implies that programs have an adverse effect on other policies that are designed to foster birth rates. Once those two components are accounted for, the effect heterogeneity between men and women can be explained. In that context it is interesting to note that information on pregnancy status has not been available in many studies surveyed by Bergmann and van den Berg (2006). In addition, one third of those studies even lacked information on dependent children. Thus, linking our findings to the latter study, we demonstrate that in countries like Austria with a low female labor force participation rate,² it is even more important to have information about the outside opportunities of women, in particular times of parental leave.

The underlying data are made available by the Federation of Austrian Social Insurance Institutions and the Austrian Public Employment Service. We possess a rich set of information on the employment history, times of unemployment, the counseling process, personal characteristics, parental leaves, and times of program participation as well as regional characteristics. Assuming conditional independence of the selection mechanism and potential outcomes, we employ an advanced version of a semi-parametric matching estimator that is very popular in

the policy evaluation literature and was used previously, for instance, by Lechner, Miquel, and Wunsch (2009).

The paper is organized as follows. Section 2 briefly summarizes the institutional background of the Austrian labor market policy. Section 3 introduces the underlying data and identification strategy as well as a first description of the population of interest. The estimation method and first results of the program allocation analysis can be found in Section 4. Section 5 shows estimation results and omitted variable checks and Section 6 concludes. Details concerning the data, the estimation method, and results are provided in an internet appendix that can be downloaded from www.sew/lechner/at.

2 Labor Market Policies in Austria

The Public Employment Service Act constitutes the legal foundation of the Austrian labor market policy. It determines the objectives of the Public Employment Service by defining the following six principles. (i) The Public Employment Service has to match job seekers and vacancies efficiently, (ii) remove any barrier that prevents this matching, (iii) increase the flow of information about potential matches, (iv) mitigate quantitative and qualitative differences between labor demand and supply, (v) secure sustainable employment, (vi) and provide funds for the unemployed in case of a job loss. As many other countries, Austria uses active and passive labor market policies to implement those principles.

2.1 Passive labor market policy

Passive labor market policy in Austria is designed to cover earnings losses caused by various types of non-employment. To receive unemployment benefit payments the unemployed have to be registered at the Public Employment Service, be eligible and willing to work, and have a predefined record of employment with unemployment insurance (UI) contributions. The pre-unemployment employment requirement is a cumulated UI contribution period of 52 weeks

within the last 24 months for the first draw on benefits. Subsequent benefits require 28 weeks within the previous 12 months. Exceptions regarding age exist.³ The standard replacement ratio is 55 percent of the former net income and the minimum entitlement period is 20 weeks. Extra payments depending on family status and the number of children may be added. After unemployment benefits expire, the unemployed are entitled to unemployment assistance, if they are still available for work. Unemployment assistance payments are means-tested, but are not subject to a time limit.

2.2 Parental leave subsidies

There are three different types of subsidies for women in parental leave. Eight weeks before and after the scheduled confinement women receive so-called *confinement benefits*, which are granted up to the average net wage of the previous three months.⁴ After the expiration of those benefits (and before January 2002), women had to apply for parental leave benefits. This benefit was granted subject to the same UI contribution requirements as unemployment benefits, which excluded women who failed to prove the required previous contribution times.⁵ After January 2002, women may apply for childcare benefit which is no longer linked to previous contribution times and granted to everyone with an amount of 14.53 Euro a day for a maximum period of 30 months.⁶ 18 months of this entitlement period are counted as regular contribution times to the pension schemes. All periods in which such benefits have been paid out are recorded in the social security records. Therefore, this information is available in the current study. We use this information to construct the theoretical start date of a pregnancy by employing the usual 9-month pregnancy period as illustrated in Figure 1.

----- Figure 1 about here -----

2.3 Active labor market policy

Apart from counseling and placement services there are a variety of active labor market programs offered by the Public Employment Service in order to overcome specific reintegration obstacles of the unemployed.

The first group of programs promotes vocational flexibility. Those programs can be classified into *orientation measures*, *active job search*, *job coaching*, and *qualification measures*. Orientation measures assess the individual situation and aptitude of the unemployed person and serve as an upfront decision process for subsequent (re-)integration activities. Active job search aims at improving job acquisition skills, like writing an application or interview training. Job coaching deals with the long-term unemployed and groups with specific placement handicaps, like disabled persons, by means of a combination of counseling, qualification, and on the job training. Qualification measures comprise further education and various forms of vocational training. The range of program stretches from courses requiring only basic skill levels, like catering courses, to high level software courses, up to formal educational and vocational degrees. Participants are either allocated by the Public Employment Service or find a program on their own and then apply for course subsidies with the Public Employment Office.

Another group of programs consists of the so-called job creation schemes. *Socio-economic enterprises* and *non-profit sector projects* are designed to capture the long-term unemployed individuals and other problematic cases, like, for instance, individuals with psychological diseases, etc. Such programs offer a quasi-realistic work environment. In principle, those jobs are restricted to one year. They are sometimes augmented by socio-pedagogical treatment to gradually reintegrate the participants into the regular labor market. With *integration subsidies*, the Public Employment Service supports special groups of unemployed, like the disabled, long-term unemployed or older people, by means of a wage subsidy for the first 150 days of a

new employment. Encouraging individuals to become self-employed, the Public Employment Service offers the so-called *business start-up program*, which supports young entrepreneurs, starting with a business idea until the actual foundation of their own firm. Furthermore, the Public Employment Service supports young individuals who have been searching unsuccessfully for an apprenticeship by providing different courses aimed at endowing the participants with human capital that is similar to the level of the first year of a regular apprenticeship of three years. A hybrid form of labor market programs is the so-called *beneficence for labor*, which is organized in collaboration with local firms in order to compensate sudden local excess demand or supply of workers caused by, e.g. business foundation or sudden firm closures.⁷ Finally, there are also qualification programs for employees to enhance sustainable employment for workers threatened by unemployment.

----- Table 1 about here -----

To get an impression of the magnitude of the programs, Table 1 reports the overall expenditures and number of participants per program type. It can be seen that active job search and qualification measures are the most important programs with respect to the number of participants. Over time, we observe that the number of active job search programs increases whereas participation in qualification measures drops to 70 percent in 2002 compared to 2000. Integration subsidies feature far less participants but a considerable amount of expenditures, because the respective subsidies can amount up to 100 percent of the wage bill of the new employment. The same holds for socio-economic enterprises and non-profit sector projects which are also characterized by high average costs per participation of, for instance, over 11'000 Euros for non-profit sector projects in 2000. In contrast, course subsidies appear to be on average a rather low-cost measure of around 600 Euros per participation in 2000.⁸ For the year 2002, we also calculated expenditures per day. Again, we can see that socio-economic enterprises, non-profit sector projects, and integration subsidies are the most

expensive measures per day. The former two are even more costly since the respective expenditures do not only cover the wage of the participants, but also the coverage of potential losses of the job-creating firm. Beneficences for labor have very low costs per day since most of the costs are carried by the cooperating firms.

3. Data and identification strategy

3.1 Data

The three data sources that are used for the program evaluation comprise administrative registers from the Federation of Austrian Social Insurance Institutions and the Austrian Public Employment Service, including information from the program register data. We make use of all the Austrian population instead of a random sample as is usually the case. Using the population increases computation time considerably, but maximizes the precision of our evaluation results. For example, due to the resulting large number of observations, it will be possible to non-parametrically estimate program effects fairly precisely even for smaller subgroups of participants and programs.

We use the Social Insurance data to obtain information about times in employment (employment states: employed, self-employed or civil servants; with earnings and employer information), retirement, and other periods relevant for social insurance contributions from 1985 to 2005. Since all financial support during times of parental leave are granted relative to the scheduled confinement date, we identify not only times of parental leave, but also the pregnancy status for women, which will be a key control variable in the analysis. Information about the counseling process of the Public Employment Service, i.e. beginning and end of an unemployment period, regional identifiers, personal characteristics like sex, marital status, nationality, current profession and desired profession, education, disability status, number of job offers received, or times of previous labor market program participation, is available from

the Public Employment Service data from 1990 until 2005. Finally, the Public Employment Service data gives us detailed information about the type of labor market program from 2000 to 2005.

Most of the data is available on a daily basis, but to condense the information into a manageable form we chose to aggregate the daily information into 2 week intervals (which is more precise than the usual grids used by evaluation studies that are commonly based on monthly, quarterly or even yearly information).

However, although this data set is well suited for an evaluation exercise, the nature of the data nevertheless imposes some restrictions with respect to the definition of the participation window and the follow-up period which will be discussed in detail later on. Furthermore, we have to rely on a quite broad definition of the type of qualification measures⁹.

3.2 Identification strategy

In the current analysis, we concentrate on the average program effects compared to non-participation. The identification problem in non-experimental program evaluations is that participants in one program differ, sometimes substantially, from potential comparison observations in the non-participation state with respect to characteristics that may influence the outcome variables under inspection as well. Since our data is very informative, but contains no obvious instrumental variable, i.e. a variable that influences the outcome only by influencing the participation decision, we chose the so-called conditional independence assumption (CIA) to overcome the resulting identification problem. It states that if we are able to observe all factors that jointly influence the participation decision and the outcomes, then, conditional on those factors, we can learn the (potential) non-participation outcomes of the participants from the observable non-participation outcomes of the non-participants with the same distribution of characteristics, which identifies our parameter of interest. This identification strategy goes back to Rubin (1974) for the case of comparing participants to

nonparticipants. Imbens (2000) and Lechner (2001) generalize this idea to the case of multiple treatments and provide similar identification conditions. However, the CIA strongly hinges on the availability of a comprehensive set of covariates. To justify its applicability in the present framework, we now discuss three important issues of program allocation: the allocation decision of the caseworker of the Public Employment Service, the willingness and collaboration of the unemployed individual, as well as relevant eligibility criteria in general.

The standard allocation procedure is initially based on a face-to-face interview between the unemployed person and the caseworker. Several aspects, like education, family affairs, past behavior on the labor market, features of the last employment, and individual program history are discussed. As a result of this interview and in light of the local characteristics of the labor market, the caseworker decides whether or not the unemployed person should be sent into a specific labor market program. Multiple refusals of program offers can lead to temporary suspensions of the benefit payments. However, such punishments are rarely observed in the data. The data contains a large set of covariates that are suitable to map most of those aspects. In addition to variables like age, sex, foreigner status, family status, education, information on the job, and the previous sector of employment, we construct a rich set of variables that summarizes the entire labor market history of the unemployed person. This history covers up to 15 years before the actual entry into unemployment under inspection on a fine 2-week scale. We construct variables covering previous times of (un-) employment, program participation, times of childcare¹⁰, military service, times of non-registration, which we call out-of-labor-force times (OLF) from now on. By means of this, we are also confident to possess suitable proxy variables for unobservable variables like motivation or the general attitude towards employment. In addition, we use characteristics of the local labor markets relevant for each specific individual.¹¹

From the perspective of the unemployed, all points mentioned above, certainly play a role for the participation decision. Another component of the individual consideration might be the question whether the currently unemployed person was satisfied with the kind of his/her former job. Since we observe data on the current and the desired profession, we are able to identify or at least approximate this feature. Furthermore, since unemployment insurance contributions are paid during the time of program participation, the individual decision might take into account the remaining time of the unemployment benefits. Thus, we also compute the remaining unemployment benefits claim at the time of (hypothetical) program entry. Another important determinant will certainly be the existence of dependent children, which is available in this data. Thus, we control for all previous times in parental leave (and thus for the complete childbearing history), but also for the month of pregnancy for women during the unemployment spell under consideration, i.e. the pregnancy status right before the hypothetical program entry, which has not been available in previous studies on effect differentials for men and women. Furthermore, we assess all previous control variables to be also relevant for the outcome variable 'parental leave' which is used later on, especially, age, marital status, and education. The desire for vocational change is also a key determinant, since unemployed who desire a vocational change are presumable less focused on family planning.

From an institutional point of view, a key eligibility requirement for program participation is being unemployed (whether the individual receives unemployment benefits or unemployment assistance is irrelevant). We will resolve this issue by choosing an adequate inflow of eligibles into unemployment. Finally, there are number of guidelines that define specific types of unemployed to receive preferential treatment in certain programs. We explicitly account for this by tailoring the selection models to the comparisons of the specific programs under consideration, i.e. using flexible specifications that include key determinants for the selection into the respective programs. Overall, we plausibly pin down most important factors that drive

the allocation decision and the potential outcomes. Thus, assuming CIA appears to be a credible identification strategy.

3.3 Definition of the population and the programs of interest

To be included in our evaluation, programs and the respective participants have to meet five requirements. First, the identification strategy strongly hinges on the existence of a long labor market history before the entry into unemployment. Second, the follow-up period after program attendance should not be influenced by perturbing events like the possibility of (early) retirement. As a result of those arguments, we concentrate on the age groups of the labor force between 25 and 50 years. Third, the data must provide all relevant information about the selection into the different labor market programs. Fourth, since we employ non-parametric estimation techniques, the number of observations in the different programs has to be sufficiently large. Finally, we require the program content to be more substantial than the usual counseling process. Under those restrictions, we end up with six program types that can be credibly evaluated: Socio-economic enterprises, non-profit sector projects, job coaching, active job search, qualification measures, and course subsidies.

The nature of the data drives the definition of the population used in the estimation. Information on program participation is only available from the year 2000 onwards. The follow-up period is restricted by the end of the observation period in 2005. Hence, we consider the first inflow of individuals¹² from employment into unemployment or one of the six labor market programs between 2000 and 2002.¹³ By means of this, we observe enough participants in each program and have a follow-up period of at least three years, which enables us to identify effects that are less affected by initial lock-in effects. Doing so, we end up with a population of 797'034 persons.

The next step is to divide all persons who passed this criterion into participants and nonparticipants. In that population, we define a participant to be a person who took part in a program

before the end of 2002 (without an employment spell between inflow and participation). Thus, nonparticipants are persons who moved from employment into unemployment and have not been allocated to a program between 2000 and 2002, or took up an employment before being allocated to a program. The resulting numbers of observations are shown in the first row of Table 2.

----- Table 2 about here -----

However, we impose a number of further restrictions. Some control variables, like the remaining unemployment insurance benefit claim or the duration in unemployment before the entry into a program require a reference data (artificial program start date) for the nonparticipants. To obtain such a reference date, we employ an approach suggested by Lechner (1999). We simulate start dates for the nonparticipants by drawing start dates from the distribution of the participants. If the nonparticipant is not eligible at the simulated reference date, then this nonparticipant is not considered in the evaluation. The fairly drastic reduction in the number of observations is not particularly important though, since (i) participants are in abundant supply, and (ii) they serve only as comparison observations for participants and are not interesting per se. In Austria, temporary layoffs are widely spread. Especially workers in the tourism or construction sector are laid off with a more or less binding reemployment guarantee. Since such reemployment guarantees may differ substantially with respect to how much binding they are, and since we do not observe such differences that most likely influence participation and labor market outcomes, we require that all persons are laid off permanently. The age restriction, for reasons described above, is applied as well. Furthermore, we require the duration of the last employment before the inflow into our sample to be longer than 2 months. By means of this, we make sure that prior participants in subsidized employment are not employed further for a couple of days after the end of the program, which would cause a short employment spell before becoming unemployed again. We observe that especially the

age restriction reduces the number of participants and nonparticipants considerably. The resulting number of observations, however, still allows reliable results from non-parametric estimation.

3.4 A descriptive analysis of the selection into the programs

As a first description of the selection process, Table 3 shows mean characteristics by participation status for selected variables.¹⁴ In general, the numbers exhibit many aspects of the institutional environment in Austria as well as the general allocation policy of the Public Employment Service. Except for socio-economic enterprises and active job search the fraction of female participants is above 50 percent. Qualification measures even have a female participation rate of 62% which underlines gender mainstreaming requirements anchored in the Guiding Principles of the Federal Ministry of Economics and Labor. Consequently, those participants feature higher average mean durations in times of parental leave before the defining unemployment period. We computed the pregnancy state for women right before the hypothetical program start. It can be seen that pregnancy is hardly an issue for the program groups, except for non-profit sector projects. Further, we observe that the fraction of pregnant female non-participants is higher compared to female participants of all programs, so that pregnancy status is indeed an important variable to control for in the remainder of the analysis.

For programs which are specifically designed for unemployed with certain reintegration obstacles, like socio-economic enterprises, non-profit sector projects and job coaching, we observe a fraction of disabled participants of almost 22 percent which is nearly three times higher than for active job search and more than two times higher than for qualification measures and course subsidies. Participants of socio economic enterprises are also on average the oldest and the ones with the shortest mean duration in childcare. This distinction between programs for unemployed with stronger reintegration problems on the one hand and programs for unemployed with ‘usual’ reintegration problems on the other hand can be observed in

many dimensions. For the former group we observe predominantly participants with compulsory schooling (9 years) as the highest education level, jobs in the production and construction sector, higher average times in unemployment, shorter durations of the last employment spell and a lower overall fraction in employment over the entire observation period in the data. Furthermore, those participants have much lower remaining benefit claims at the time of program entry and lower past earnings.

----- Table 3 about here -----

A peculiarity that is observed for all program groups is that 15-23 percent of the participants attended a program of the same kind in a previous unemployment spell. Active job search measures, primarily used to endow participants with special job application and interview skills, are also used as a screening instrument for long-term unemployed in order to renew and tighten the contact to the local Public Employment Service office. This is also reflected in Table 3 since participants in active job search live in regions with a higher average fraction of long-term unemployment. It can be observed that non-profit sector projects and job coaching are rarely used in the state of Vienna compared to the rest of Austria. In terms of employment in the period after the program, we find that participants in socio-economic enterprises, non-profit sector projects, and job coaching have considerably lower employment rates one year after the program start, which is not surprising given program lengths of up to one year. Participants in shorter programs exhibit higher employment rates. Overall, participants catch up after two or three years.

----- Figure 2 about here -----

Figure 2 provides a more complete picture of pre- and post-program employment rates. The abscissa shows the months before and after the (hypothetical) start of the program. The ordinate measures the employment rate for different program groups. The left picture shows that participants in socio-economic enterprises, non-profit sector projects, and job coaching

differ quite substantially from nonparticipants with respect to their employment history three years before the program. Hence, interpreting post-program employment rate differences as program effects is not appropriate. The same holds for active job search, qualification measures, and course subsidies. Here, the pre-program differences are also visible, but not as large as for the first group of programs.

4. Econometric methodology

As discussed before, the identification of the program effects hinges on the existence of the variables that jointly influence program participation and potential outcomes. For every comparison of different program states (including nonparticipation) the estimation strategy is to form comparison groups that do not differ from the respective program groups with respect to the distribution of those conditioning variables. We employ an advanced version of a semi-parametric two stage propensity score matching approach. This class of estimators is popular in the program evaluation literature, because it allows for individual effect heterogeneity while not requiring a parametric specification for the relation of the outcome variable and the variables controlling for the selection bias correction. Rosenbaum and Rubin (1983) show that if the CIA holds, given all relevant covariates, then it also holds for a particular scalar function of those covariates, i.e. the participation probability conditional on the control variables (propensity scores). Hence, a first-step procedure estimates those conditional program participation probabilities. The advantage is that the construction of control groups can be done on the basis of the propensity score. Those points are discussed in Heckman, LaLonde, and Smith (1999) and Imbens (2004) for the binary treatment and in Imbens (2000) and Lechner (2001) for the multiple treatment case.

We model the propensity score by means of binary probit models for each program type and for men and women separately. The specifications differ sometimes considerably by program and gender as can be seen in the internet appendix. The results give further insights into the

program allocation of the caseworkers. Table 4 reports a selection of variables that appear frequently in all specifications.¹⁵ Despite the existence of considerable heterogeneity, some general determinants of program participation versus nonparticipation appear. For both sexes we find a positive relation of participation to disability, desiring a vocational change, longer durations of the defining unemployment spell, and having higher average durations in past employment. Jobs in the law and administration and trade sector tend to increase the probability of being promoted in active job search, qualification measures and course subsidies. Being a foreigner, having a university (entrance) degree, as well as a previous occupation in the service sector decreases (if at all) the participation probability. For women, we find that the months of pregnancy reduce the participation probability for all programs, except socio-economic enterprises. The overall previous time spent in parental leave prior to the defining unemployment spell under consideration reduces the participation probability for non-profit sector projects, job coaching, and active job search, but increases the one for course subsidies. For men, we find that having no vocational degree increases the probability of participating in socio-economic enterprises, non-profit sector projects, and active job search, but decreases the one for participating in course subsidies. The remaining picture is less clear as can be seen in Table 4.

To obtain the final estimates of the program effects, we use the extended propensity score matching procedure as proposed by Lechner, Miquel, and Wunsch (2009) and modified by Wunsch and Lechner (2007). First, they allow for more than one good match, if available, by incorporating the idea of caliper matching as in Dehejia and Wahba (2002). Second, they incorporate a bias correction procedure to account for small mismatches of the matching step by exploiting the double robustness property as discussed in Rubin (1979) and Joffe, et al. (2004). The appendix contains a brief description of the way the estimator is implemented.

----- Table 4 about here -----

5. Results

5.1 Program effects by gender

The following figures illustrate program effects for participants in one program (listed at the top of each figure) compared to nonparticipation. The follow-up period relevant for outcome measurements starts at the day of program entry and ends three years later. Effects are estimated monthly as differences of percentage points for all outcome variables.¹⁶ If symbols appear on the different lines (denoting the program effects), it means that the respective effects are statistically different from zero at the 5 percent level. Recall that the matching step is done on the basis of propensity scores that are estimated for men and women separately.¹⁷

The two graphs in the first row of Figure 3 show employment effects of participating in socio-economic enterprises, non-profit sector projects, and job coaching. Common to all graphs of Figure 3 are negative employment effects for all programs right after the start, which is commonly labeled as lock-in effect (see van Ours 2004, among others). The intuition is that participants reduce their search intensity while being in a program and, therefore, re-enter less frequently into regular employment than non-participants. There are differences in the progression of the curves for men and women. For women, we observe that socio-economic enterprises seem to increase the employment probability of the participants by 9 percent after three years. For qualification measures and course subsidies, presented in the second panel of Figure 3, we find small positive effects at the very end of the follow-up period of about 2.5 percent for women.¹⁸ For male participants, we do not find positive effects for any program. Qualification measures even seem to harm the respective participants three years after program start. Interestingly, even after controlling for the pregnancy status which distinguishes this study from previous ones, we still find some positive effects after three years for women. Thus, for certain labor market programs this study points to an effect premia for women as well.¹⁹

----- Figure 3 about here -----

5.2 Where do the positive effects for women come from?

Previous studies, like Lechner, Miquel, and Wunsch (2009), showed that usually the positive employment effects are not achieved by reducing the rate of registered unemployed participants, but by increasing their labor force attachment, i.e. by reducing the rate of participants leaving the labor force. Therefore, Figure 4 shows the program effects on times out of the labor force (OLF), defined as not being employed and not being registered as unemployed in the current study.

----- Figure 4 about here -----

All programs reduce times in OLF. Comparing both sexes, especially in the lower panel of Figure 4, we find the reduction of OLF to be higher for women than for men. Using a unique feature of our data, we disaggregate this effect further. Figure 5 shows the program effects on times of parental leave for men and on times of parental leave *plus* pregnancy (PP) for women.²⁰ For women, we find significant negative effects on PP for qualification measures and course subsidies.

----- Figure 5 about here -----

For socio-economic enterprises, job coaching, and active job search we also find negative, but insignificant effects. Only non-profit sector projects seem to have small positive effects on PP, though being insignificant. There are no significant effects on parental leave for men. To summarize, women who are not allocated to a labor market program, though being eligible, switch more frequently into PP. It seems as if some of those women are faced implicitly with the decision of being trained or using the time to realize family plans that would have been postponed otherwise, i.e. in case of a program allocation. Hence, we find that apart from effects on employment (positive or negative) programs may contradict other policies that are

designed to increase birth rates. As a final check, we use an outcome variable which takes the value one for times in employment *and* PP and zero otherwise. The results are presented in Figure 6.

----- Figure 6 about here -----

The result is rather striking. Three years after program start we do not find any significant effect for any program type, neither for men nor for women. Moreover, we observe that the relative dominance of the women melted down towards zero. It appears that the only remaining difference appears for qualification measures with significant negative effects for men and insignificant effects for women. Hence, we do not find substantial effect premia for women as soon as we incorporate times of PP as an outcome variable. The female-premia in Figure 3 appeared because female non-participants take an additional outside opportunity, i.e. becoming a mother, which leads to comparably low employment rates for this pool of women. Men are much less affected by such issues and we, therefore, observe only the program effect, which is usually non-positive.

From the perspective of the policy maker, the message of the results should be ambiguous. If additional kids are considered as desirable as employment, then the programs are ineffective. If not, then the increase in the employment effect for women at the cost of reducing or postponing fertility may be desirable and considered as a 'positive' outcome of the active labor market policies.

----- Figure 7 about here -----

Due to the large size of the population in this study, it is possible to stratify female participants further, i.e. per age group, to get a clearer picture of the underlying heterogeneity relating to this effect. Thus, we divide all women into two age groups, below and above 40 years, to separate two groups that differ with respect to individual family plans. Doing so, 97.6 percent of all pregnancies just before the hypothetical program start are in the lower age group.

Due to population size restrictions, we consider the three larger programs only, active job search, qualification measures, and course subsidies.

----- Figure 8 about here -----

Figure 8 shows that splitting the female population according to age, we observe that the positive effect for course subsidies can be attached to women younger than 40 years. For this group we observe that all programs have a negative effect on PP. For the older segment in turn, we do not observe such effects. Overall, for both age groups we fail to detect positive effects once we take employment *plus* PP as the outcome variable. Additionally, but not surprisingly, the effects on employment for men above the age of 40 look exactly like the effects for women in that age group since pregnancies and parental leaves play hardly any role here.²¹ Both arguments confirm our result that once we correct for the selection bias (pregnancy status for women) the remaining (small) positive effects, here for course subsidies for younger women, only appear because eligible non-participants subsequently emphasize family planning, which leads to lower employment rates compared to those participants they have been matched to.

5.3 Pregnancy bias - a sensitivity check for omitted variables

As became clear in the previous section, one important feature of this study is that we use information on parental leave and pregnancies as an outcome variable as well as for correcting for potential selection bias, as pregnant women are rarely observed in labor market programs. Thus, if this variable is not controlled for, it is likely that a larger share of pregnant women appears in the group of nonparticipants which will bias the employment effects upwards.

Now, we analyze the size of this bias by comparing our results to results that would have been obtained without that information. First, we do not delete persons who are in parental leave right before the (hypothetical) program entry and, second, we leave out the month of preg-

nancy from the selection model, i.e. we allow for the selection bias that we suspect to be one driving factor for the positive effect differential for women. Figure 9 summarizes the results.

Obviously, the results for men are not affected by this change since parental leave is a minor issue here. For women, all effects increase by approximately 2-3 percentage points compared to Figure 3. For socio-economic enterprises this results in a wider range of significant positive effects, especially at the end of the follow-up period. For active job search, qualification measures, and course subsidies we now observe significant positive effects that are stable from the middle of the follow-up period onwards. According to these estimation results we would conclude that we find clear evidence of positive effects for women for four out of six labor market programs, which is highly misleading as shown by the results in the previous sections.

----- Figure 9 about here -----

To wrap up, we find two important impacts of the observability of times of parental leave. First, by constructing the pregnancy status for women, it removes the remaining omitted variable bias in the first-step selection model. Second, it can be used to better understand program effects in the follow-up period.

6. Conclusion

This study provides an econometric evaluation of several important active labor market programs in Austria. Large and informative administrative data is used to control for potential selection problems. As a particular advantage of the data, we identify times of pregnancy and parental leave. For women, this information turns out to be very important for reducing selection bias as well as for understanding the effects of the programs.

For men, we find the programs to be generally ineffective in increasing unsubsidized employment. However, without controlling for pregnancy status, most programs appear to be

effective in increasing employment prospects for women. Those effects become smaller once the pregnancy information is taken into account, but they are still there. A closer investigation shows that the programs increase female employment by reducing the share of women leaving the labor force. The underlying mechanism is that the programs reduce the pregnancy rate of the participants, i.e. programs also have an adverse (and often unintended) effect on other policies designed to foster birth rates. Once that effect is subtracted from the employment effects, almost all gender differences disappear.

Our findings about the gender differences may explain results appearing in the survey by Bergemann and van den Berg (2006). They find that women's effect premia predominantly occur in countries with a low female work force participation indicating that times for taking care of infants and labor market participation are less compatible or exclusive. Moreover, none of those studies incorporated information on times of pregnancies. We demonstrate for the case of Austria that it is important to have information about the outside opportunities of women, like times of parental leave. The puzzle of women's effect premia might be partially explained by the fact that important confounders (and outcome measures), like the ones discussed above, have not been available in other studies.²²

The question whether our results for women, namely a positive employment effect and a zero effect on the fertility *plus* employment outcome, indicate that the definition of a program success depends on the value judgement of the policy makers. If additional (or earlier) kids are considered as desirable as employment, then the programs are ineffective. If employment is considered more important, then the increase in the employment effect for women at the cost of reducing or postponing fertility may be desirable and considered as a 'positive' outcome of the Austrian active labor market policies. This conclusion is most likely true not only for Austria, but for many other European countries as well.

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Appendix: Matching protocol

The results presented contain the binary comparison of each particular program to the state of non-participation for the participants in that particular program. Table 5 shows the matching estimator that is used for each such comparison.

----- Table 5 about here -----

Tables

Table 1: Expenditures and number of participants by program type

	Partici- pation	Expen- ditures	Exp. / part.	Partici- pation	Expen- ditures	Exp. / part.	Partici- pation	Expen- ditures	Exp. / part.	Exp. per day
Program	2000			2001			2002			
Socio-economic enterprises	3.400	31	9.265	5.700	39	6.807	5.800	49	8.362	56
Non-profit sector projects	2.900	33	11.448	3.600	33	9.056	3.800	36	9.500	59
Orientation measures	8.000	28	3.511	11.800	29	2.451	18.200	28	1.535	19
Job coaching	1.700	10	5.915	2.700	11	4.180	4.100	10	2.447	18
Active job search	22.600	41	1.788	35.000	37	1.063	46.200	41	892	21
Qualification measures	77.700	110	1.411	65.600	104	1.591	54.400	123	2.262	29
Course subsidies	17.200	11	622	26.900	19	710	33.100	23	695	14
Business start-up program	11.900	31	2.613	22.300	32	1.448	34.300	34	980	8
Qualification programs for employees	7.600	18	2.316	27.200	28	1.044	44.300	35	763	17
Beneficence for labor	3.400	8	2.412	3.600	5	1.472	4.400	4	909	4
Integration subsidies	16.100	105	6.522	18.300	97	5.301	18.000	69	3.839	26
Overall expenditures for ALMP as a % of GDP										
	0.52			0.5			0.56			

Note: Expenditures in million Euros. Expenditures per participation and per day are in Euros. The numbers in the column 'participation' denote cases not persons (multiple participations occur frequently). Sources: Basisinformationsbericht Österreich (2004), AMS Data Warehouse, OECD source data base.

Table 2: Selection of the population used in the estimation

Nonparticipation	Socio-economic enterprises	Non-profit sector projects	Active job search	Job coaching	Qualification measures	Course subsidies
All persons who switch into unemployment for the first time between 2000 and 2002						
706'653	2'119	1'474	36'870	1'152	31'277	17'489
Simulated start date before the end of 2002 and in 'defining unemployment spell'						
289'629	2'119	1'474	36'870	1'152	31'277	17'489
No temporary layoffs*						
221'729	2'014	1'382	35'312	1'071	29'518	15'922
Age at entry between 25 and 50						
119'925	979	894	22'452	613	20'704	11'447
Duration of last employment > 2 months						
105'342	693	650	19'316	453	18'233	10'150

Note: * Only sample without a fixed future re-employment date (information provided by the caseworker).

Table 3: Mean characteristics of selected variables (mean or share in %)

Variable	Non-participation	Socio-econ. enterprises	Non-profit sector projects	Active job search	Job coaching	Qualification measure	Course subsidies
Number of observations	105342	693	650	19316	453	18233	10150
Personal characteristics (in %)							
Female	51	49	54	50	54	62	55
Disabled	5	21	22	7	22	10	10
Foreigner	20	12	7	21	11	13	14
Age at (hypothetical) program entry	36	40	37	37	37	37	37
Desires vocational change	18	26	21	29	23	22	20
Pregnant at the (hypothetical) program start (only women subsample)*	2.5	0	1.7	0.3	0.4	0.5	0.5
Average month of pregnancy (only women subsample with pregnancy)*	5.4	0	3.6	3.7	3.5	3.6	3.6
Education (in %)							
No formal education	3	3	4	6	4	2	3
Compulsory school	34	50	40	35	46	28	26
Apprenticeship	35	32	29	30	27	37	35
Schooling degree with vocational qualification	6	5	7	6	8	10	9
Schooling degree with university entrance qualification	9	4	7	11	4	12	12
Academic degree	5	9	9	5	4	4	7
Education missing	8	4	4	8	6	8	8
Income (in EUR / day)							
Last earnings	42	38	34	45	37	43	43
Unemployment insurance benefit claim at (hypothetical) program entry	22	10	10	17	11	19	19
Last employment (in months)							
Duration of last employment	28	20	20	28	23	32	33
Fractions of entire period in data (in %)							
Fraction of unemployment	12	22	21	14	18	12	11
Fraction of employment	68	59	53	67	60	67	68
Fraction of remaining time	20	19	27	19	22	21	22
Mean duration (in months)							
Employment over 5 years before	21	16	14	21	17	24	25
Out of labor force over 5 y. before	1.5	1.5	1.8	1.3	1.6	1.4	1.5
Parental leave over 5 y. before	2.1	1.6	2.6	2.0	2.0	2.6	2.1
Program history (in %)							
Last program of the same kind	--	23	17	17	14	15	14
Information on current unemployment spell							
Entry 1 st quarter of the year (in %)	27	32	44	31	29	29	28
2 nd quarter (in %)	23	24	20	26	20	24	23
3 rd quarter (in %)	23	22	23	25	26	25	26
4 th quarter (in %)	28	22	13	19	25	22	24
Time in unemployment before (hypothetical) program entry (in months)	3.1	7.8	6.3	5.7	7.5	4.9	4.9
Regional information (in %)							
UE rate 2000	7.0	6.7	6.9	8.5	6.2	7.2	6.7
Local fraction unemployment assistance recipients 2001	32	32	32	44	28	35	32
Local fraction of long-term unemployed 2000	20	19	20	29	15	22	19
Residence in the state of Vienna	23	17	5	65	7	30	23
Employment after begin of program (in %; outcome)							
Employed 1 year after begin	62	37	41	53	37	51	59
Employed 2 years after begin	64	45	50	58	47	62	68
Employed 3 years after begin	64	49	54	59	53	66	70

Note: If not stated otherwise, we compute all variables of the employment history at the entry into the defining unemployment spell. (*) Pregnancy is the only variable that is computed on the women's subsample.

Table 4: Results of the propensity score estimation

	All programs versus nonparticipation											
	Women						Men					
	Socio-economic enterprise (SEE)	Non-profit sector project (NSP)	Job coaching (JC)	Active job search (AJS)	Qualification measures (QM)	Course subsidy (CS)	Socio-economic enterprise (SEE)	Non-profit sector project (NSP)	Job coaching (JC)	Active job search (AJS)	Qualification measures (QM)	Course subsidy (CS)
Disabled	+	+	+	+	+	+	+	+		+	+	+
Foreigner									-	-		
Age at program entry				+		+		+		+	-	-
No vocational degree	+			+	-	-	+		+	+		-
University entrance qualification and academic degree		-	-				-					
Wish for vocational change	+			+	+	+				+	+	+
Month of pregnancy		-	-	-	-	-						
Last earnings				+	-	+			-		-	
UB claim expired		+		-	-					-		
Duration of defining UE spell		+	+	+	+	+		+	+	+	+	+
Mean duration												
in employment 2 years before UE entry				+	+	+				+	+	+
in unemployment 2 years before UE entry				-	-	-				-	-	-
Overall time in child care		-	-	-	+	+						
Profession												
agriculture				-				+				
law and administration				+	+	+				+	+	+
engineering								+		+	+	+
schooling, health, culture	-			-	+	+						+
commerce		-		+	+	+				+	+	+
service		-		-	-	-				-	-	
Regional indicators												
UE rate	-		+		-			+		-	-	
fraction of long-term unemployed	+				+	+			-	+	+	
industrial region	+	+			+	-				+		-
touristic region	+			+		-				+	+	-

Note: We estimate probit models for the selection into the different programs compared to the state of nonparticipation. We do not report the value of the coefficients, since they are only identified up to scale and thus not comparable between the different models. + (-) denotes that the respective variable has a positive (negative) influence on the participation probability that is significant on the 5% level. **Reading example 1:** For the selection of women into job coaching (JC) compared to non-participation, we find a positive influence of the disability status on the probability of participating in JC. **Reading example 2:** For the selection of men into active job search (AJS) compared to non-participation, we find that the wish for a vocational change increases the probability of participating in AJS.

Table 5: A matching protocol for the estimation of ATET

Step 1	Estimate a probit model to obtain the choice probabilities: $\hat{p}_i = \Pr(D = 1 X = X_i)$
Step 2	Restrict sample to common support: Delete all $D=1$ observations with $\hat{p}_i$ larger than the largest estimated propensity score among the $D=0$ observations.
Step 3	Estimate the counterfactual expectation of the outcome variable $E[Y^0 D = 1]$
Standard propensity score matching step (binary treatment)	
a-1)	Choose one observation from the $D = 1$ subsample and delete it from that pool.
b-1)	Find an observation from the $D = 0$ subsample that is as close as possible to the one chosen in step a-1) in terms of $[\hat{P}(x), \tilde{x}]$, with respect to 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 participant in $D = 1$ is left.
Exploit thick support of X to increase efficiency (radius matching step)	
d-1)	Compute the maximum distance (δ) obtained for any comparison between treated and matched comparison observations.
a-2)	Repeat a-1).
b-2)	Repeat b-1). If possible, find other observations of the $D = 0$ subsample that are at least as close as $R \times \delta$ to the one chosen in step a-2); R is fixed to 90% in this application but different values are examined in the sensitivity analysis. Do not remove these observations, so that they can be used again. Compute weights for all chosen comparisons observations such that these weights are proportional to their distance (calculated in b-1). Normalise the weights such that they add to one.
c-2)	Repeat a-2) and b-2) until no participant in $D = 1$ is left.
d-2)	For every $D=0$ observation, add the weights obtained in b-2).
Exploit double robustness property 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 $\hat{y}^0(x_i)$ of every observation in $D = 0$ and $D = 1$ using the coefficients of this regression: $\hat{y}^0(x_i)$.
f-2)	Estimate the bias of the matching estimator for $E[Y^0 D = 1]$ as:
	$\frac{1}{N^1} \sum_{i=1}^N \mathbb{1}(D_i = 1) \hat{y}^0(x_i) - \sum_{i=1}^N \mathbb{1}(D_i = 0) w(x_i) \hat{y}^0(x_i).$
g)	Using the weights obtained by weighted matching in d-2), compute a weighted mean of the outcome variables in $D = 0$. Subtract the bias from this estimate.
Final estimate	
h)	Compute the treatment effect by subtracting the weighted mean of the outcomes in the comparison group ($D = 0$) from the mean in the treatment group ($D = 1$).
Note:	The table refers to the estimation of ATET. The modifications for ATEN are obvious. $\tilde{x}$ is included to ensure a high match quality with respect to critical variables.

Figures

Figure 1: Construction of the pregnancy start date

Figure 2: Employment 3 years before and after program entry

Note: NON: nonparticipation; SEE: socio-economic enterprises; NSP: non-profit sector projects; JC: job coaching; AJS: active job search; QM: qualification measure; CS: course subsidy.

Figure 3: Effects of program participation versus non-participation: Employment in %-points

Note: Results based on matching estimation. Abscissa: Months after program entry. Ordinate: Difference of employment rates. Symbols indicate that the effect is statistically different from zero at the 95% level. SEE: socio-economic enterprise, NPS: non-profit sector project, JC: job coaching, AJS: active job search, QM: qualification measure, CS: course subsidy. Participants (male/female): SEE (343/340), NPS (300/347), JC (206/243), AJS (9641/9638), QM (6869/11330), CS (4549/5587).

Figure 4: Effects of program participation versus non-participation: OLF (not employed & not registered as unemployed) in %-points

Note: Results based on matching estimation. Abscissa: Months after program entry. Ordinate: Difference of out-of the labor-force rates. Symbols indicate that the effect is statistically different from zero at the 95% level. SEE: socio-economic enterprise, NPS: non-profit sector project, JC: job coaching, AJS: active job search, QM: qualification measure, CS: course subsidy. Participants (male/female): SEE (343/340), NPS (300/347), JC (206/243), AJS (9641/9638), QM (6869/11330), CS (4549/5587).

Figure 5: Effects of program participation versus non-participation: Parental leave & pregnancy

Note: Results based on matching estimation. Abscissa: Months after program entry. Ordinate: Difference of shares in parental leave or pregnancy. Symbols indicate that the effect is statistically different from zero at the 95% level. SEE: socio-economic enterprise, NPS: non-profit sector project, JC: job coaching, AJS: active job search, QM: qualification measure, CS: course subsidy. Participants (male/female): SEE (343/340), NPS (300/347), JC (206/243), AJS (9641/9638), QM (6869/11330), CS (4549/5587).

Figure 6: Effects of program participation versus non-participation: Employment & pregnancy & parental leave

Note: Results based on matching estimation. Abscissa: Months after program entry. Ordinate: Difference of employment rates. Symbols indicate that the effect is statistically different from zero at the 95% level. SEE: socio-economic enterprise, NPS: non-profit sector project, JC: job coaching, AJS: active job search, QM: qualification measure, CS: course subsidy. Participants (male/female): SEE (343/340), NPS (300/347), JC (206/243), AJS (9641/9638), QM (6869/11330), CS (4549/5587).

Figure 7: Percentage of pregnant women by program status and age group

Note: The pregnancy status is computed right before the (hypothetical) program start. For this illustration we pooled all program categories due to the small fraction of pregnant women per program type.

Figure 8: Effects of program participation versus non-participation: Women per age group

Note: Results based on matching estimation. Abscissa: Months after program entry. Ordinate: Difference of employment rates. Symbols indicate that the effect is statistically different from zero at the 95% level. AJS: active job search, QM: qualification measure, CS: course subsidy. Participants (<=40/>40): AJS (6163/3493), QM (7569/3762), CS (3672/1917).

Figure 9: Effects of program participation versus non-participation: Employment in %-points

Note: Results based on matching estimation. Abscissa: Months after program entry. Ordinate: Difference of employment rates. Symbols indicate that the effect is statistically different from zero at the 95% level. SEE: socio-economic enterprise, NSP: non-profit sector project, JC: job coaching, AJS: active job search, QM: qualification measure, CS: course subsidy. Participants (male/female): SEE (343/340), NSP (300/347), JC (206/243), AJS (9642/9640), QM (6869/11332), CS (4552/5594).

Endnotes

¹ For job creation schemes in Switzerland see Gerfin and Lechner (2002). Similar results appear in Lechner and Wunsch (2006) and in Caliendo, Hujer, and Thomson (2004, 2006, 2008) for Germany. For wage or integration subsidies in Sweden see Sianesi (2008) and Forslund, Johannson, and Lindqvist (2004) and for Switzerland in Lalive, van Ours, and Zweimüller (2008) and Gerfin, Lechner, and Steiger (2005). For business start-up programs in Sweden, we refer to Carling and Gustafson (1999). For training measures, comprising formal qualification, further training of any kind, and retraining see Richardson and van den Berg (2001) and Carling and Richardson (2004) for Sweden, and Gerfin and Lechner (2002) and Hujer, Thomsen, and Zeiss (2005) for Switzerland and Germany. Lechner, Miquel, and Wunsch (2004) investigate long-run effects for Germany. Winter-Ebmer and Zweimüller (1996), Hofer and Weber (2004a, b), and Lutz, Mahringer, and Pöschl (2005) investigate employment effects for different instruments of the Austrian ALMP.

² Bergemann and van den Berg (2006) classify countries to have a low female labor force participation rate if it is at least 10 percent lower than the male labor force participation rate.

³ The UB claim, for instance, for a 40 year old unemployed person, who paid UI contributions for 312 weeks in the last 120 months, is 39 weeks. See the internet appendix for a summary table of the various exceptions.

⁴ Unemployed receive a fixed quota of currently 7.42 Euros a day. Multiple births prolong the period after confinement to 12 weeks.

⁵ The default entitlement period was 549 days, which could be prolonged between July 2001 and December 2002 to provide a gradual adjustment to the childcare benefit regulations.

⁶ If the parents share child care times, the maximum entitlement period is prolonged to 36 months. If they fail to prove regular medical consultations, childcare benefits are reduced to 7.27 Euros per day. Extra earnings are allowed up to a maximum of 14.600 Euros per year without leading to a reduction in benefits.

⁷ In case of a business foundation, future workers are trained with specific skills for the new firm. In case of a firm closure the dismissed are trained to adjust their skills for further employment in a new firm.

⁸ For business start-up programs (BSU), qualification for employees (QFE), and integration subsidies (IS) we find decreasing costs per participation over time. BSU are less frequently accompanied by other courses. QFE measures are more and more redesigned into smaller specialized measures. The refund rate of IS, granted to the employers, decreases over time.

⁹ All variables that can potentially be used to further distinguish the wide range of qualification measures have bad filling degrees.

¹⁰ Childcare in general is universally available. Our remaining conditioning variables in the propensity score capture their determinants, so that there is no problem for the validity of the CIA.

¹¹ The local labor market data was provided by the Austrian Institute of Economic Research and is merged to the individual unemployed via regional identifiers of the local Public Employment Service office.

¹² As in Lechner, Miquel, and Wunsch (2004, 2005).

¹³ Denote this unemployment spell as the 'defining UE spell'.

¹⁴ The entire set of variables that are used in the estimation part of this paper is available from the internet appendix. It covers personal characteristics, like family status, education, last profession, last industry sector, last firm size, last salary, remaining benefit duration at program entry, different aspects of the labor market history, and times of child care, program history and a set of regional indicators.

¹⁵ The estimation results for all different comparisons can be found in the internet appendix.

¹⁶ The outcome variable is also listed in the top line of every panel.

¹⁷ Note that we additionally deleted all individuals who received financial support right before the (hypothetical) entry into the program which had only marginal impact on the population size. See the internet appendix for details.

¹⁸ Note that it is possible to estimate fairly small effects (below 5 %-points) due to the larger number of participants in the programs collected in group two. Such small effects could not be identified non-parametrically before since comparable studies usually rely on (smaller) samples instead of using the population as is done here.

¹⁹ Taking unemployment as the outcome variable, it can be seen for male participants that none of the programs decreases unemployment. Qualification measures even increase unemployment by 4 percent. For women only qualification measures and course subsidies decrease unemployment, but only by 1.5 to 2.5 percent. For further details see the internet appendix.

²⁰ Women receive financial support eight weeks before a scheduled confinement and for up to 3 years afterwards, as described in Section 2. Since part of this period is counted as contribution times to the pension schemes, we observe them in the social security records.

²¹ The respective graphs can be found in the internet appendix.

²² In this sense our study reaffirms the conclusion by Bergemann and van den Berg (2006) that the program effects for women may be larger because of their additional possibilities of moving in and out of nonparticipation: parental leave is a classical component of the labor market state 'out-of-the-labor force'.

KIDS OR COURSES?

GENDER DIFFERENCES IN THE EFFECTS OF ACTIVE LABOR MARKET POLICIES

Internet Appendix

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1. Staggered unemployment benefit claims

Table 1: UB claim as a function of contribution time and age

	Contribution time in weeks	Prior relevant time in months	Entitlement in weeks	Age restriction
1st application	52	24	20	no
2nd application	28	12	20	no
prolongations	156	60	30	no
.	312	120	39	>=40
.	468	180	52	>=50
.	780	300	78	>=60

2. Mean characteristics per program group

Table 2: Mean Characteristics per Program Group

	NON	SEE	NSP	AJS	JC	QM	CS
Variable \ N	105342	693	650	19316	453	18233	10150
Personal Characteristics							
Female	50.78	49.49	53.69	50.02	53.64	62.18	55.14
Disabled	5.44	21.21	22.31	7.09	21.85	9.87	9.51
Foreigner	19.73	11.98	7.38	20.60	11.26	13.16	13.96
Age at program entry	36.16	39.83	36.81	37.19	37.31	36.58	36.77
Wish for vocational change	17.51	25.83	21.38	29.23	22.74	22.06	19.76
Family Status*							
Divorced	8.29	17.03	14.31	14.74	12.36	12.68	11.53
Single	34.12	30.74	40.46	32.49	36.87	32.66	34.01
Married	45.17	39.25	30.62	42.01	35.32	42.92	41.71
Widowed	0.50	1.01	0.77	0.63	1.10	0.53	0.33
Living community	5.83	5.92	6.77	4.59	6.84	5.06	5.40
Missing	6.10	6.06	7.08	5.54	7.51	6.15	7.01
Education*							
No schooling degree	3.24	3.46	3.85	5.85	4.42	2.00	2.52
Compulsory schooling	33.55	49.93	40.15	35.12	45.92	28.09	26.33
Apprenticeship	35.42	32.18	28.62	29.68	27.37	36.50	35.09
Vocational entrance degree	5.74	5.19	6.92	5.71	8.17	9.80	8.73
University entrance qualification	9.14	4.33	7.08	11.44	4.42	11.59	11.99
Academic Degree	5.03	0.87	8.92	4.52	3.97	4.45	7.21
Missing	7.88	4.04	4.46	7.68	5.74	7.58	8.12
Job*							
Agriculture, Forestry	1.39	1.59	2.46	0.91	2.21	0.70	0.82
Production	32.80	46.03	40.31	31.67	43.05	25.01	25.10
Commerce	12.80	11.83	9.69	15.73	10.82	15.14	13.60
Service	17.99	18.04	11.54	16.17	12.80	12.36	12.50
Engineering	3.24	2.02	1.38	4.75	1.32	3.69	4.83
Law and administration	12.89	10.25	12.00	19.88	10.82	23.44	21.35
Health, education, culture	6.69	3.46	11.08	6.38	4.64	7.26	9.57
Others	0.17	0.00	0.31	0.09	0.00	0.24	0.20
Missing	12.02	6.78	11.23	4.42	14.35	12.16	12.04
Last sector*							
Primary sector	1.10	1.01	0.77	0.39	0.88	0.49	0.51
Energy, water, mining	0.50	0.72	0.31	0.22	0.66	0.37	0.55
Production	15.92	18.61	15.08	15.48	21.85	17.56	16.89
Transport, telecommunication	5.69	3.75	2.31	6.31	3.53	5.40	5.80
Construction	12.05	6.49	4.92	6.62	7.28	7.22	6.93
Commerce	19.70	18.90	14.31	25.49	20.75	25.74	22.87

Schooling, health, culture	6.77	10.25	16.77	6.84	7.95	8.19	9.18
Tourism	12.82	8.08	5.85	9.32	8.39	8.80	8.21
Banking, IT	3.48	2.74	3.54	4.92	2.21	4.34	4.35
Others	17.99	27.27	29.54	20.75	20.53	18.00	20.44
Household	0.23	0.00	0.31	0.21	0.44	0.22	0.16
State authority	3.75	2.16	6.31	3.45	5.52	3.66	4.11
Missing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Size of last employer in persons*							
<10	28.01	18.33	17.54	23.73	23.40	25.33	26.46
[10,99]	34.18	40.98	43.08	34.77	35.10	35.56	36.08
[100,499]	17.81	22.22	17.08	20.30	20.53	20.09	19.56
>499	11.90	13.13	12.00	16.43	17.66	13.59	12.03
Missing	8.10	5.34	10.31	4.76	3.31	5.44	5.87
Fiancial information							
Last log earnings per day	1.62	1.58	1.53	1.65	1.57	1.63	1.63
Remaining UB claim	21.60	9.91	10.33	16.93	11.01	18.74	18.90
Last earnings missing	0.03	0.03	0.05	0.02	0.02	0.03	0.03
Employment history**							
Duration last employment	28.07	20.04	20.20	28.31	23.33	31.66	33.29
Mean Duration in UE**							
Overall History	2.93	4.69	4.72	3.75	3.63	3.17	2.88
5 years before UE entry	2.23	4.36	4.23	2.99	3.13	2.16	1.98
2 years before UE entry	1.27	2.59	2.42	1.43	1.62	0.98	0.84
Mean Duration in E**							
Overall History	19.00	17.77	14.77	20.08	17.42	21.35	21.78
5 years before UE entry	21.16	15.54	14.39	21.09	17.27	23.63	24.83
2 years before UE entry	13.27	9.65	10.09	13.65	11.30	14.58	15.05
Mean Duration in OLF**							
Overall History	5.82	4.59	6.63	5.26	6.14	6.18	6.61
5 years before UE entry	1.50	1.54	1.83	1.32	1.55	1.39	1.53
2 years before UE entry	0.37	0.40	0.39	0.30	0.40	0.31	0.31
Time in program **							
Overall History	0.69	3.67	2.93	1.52	3.02	1.54	1.40
5 years before UE entry	0.67	3.62	2.90	1.51	2.97	1.53	1.39
2 years before UE entry	0.33	2.44	1.97	1.00	2.10	1.02	0.89
Number of previous programs							
Overall History	0.43	1.71	1.38	0.94	1.50	0.89	0.83
5 years before UE entry	0.26	1.28	0.98	0.70	1.09	0.62	0.59
2 years before UE entry	0.12	0.77	0.61	0.43	0.68	0.38	0.38
Time in child care**							
Overall History	7.21	6.24	7.92	6.44	6.98	9.01	7.88
5 years before UE entry	2.14	1.58	2.60	1.97	1.99	2.64	2.10
2 years before UE entry	0.38	0.19	0.51	0.36	0.45	0.53	0.40
Fraction of the entire observation period in *							
UE	12.05	21.85	20.88	14.23	17.77	11.65	10.58
E	67.92	59.23	52.57	66.77	60.23	67.35	67.81
Others	20.03	18.93	26.56	19.00	22.00	21.00	21.61
Last program*							
OM	0.95	1.44	0.92	0.72	2.21	0.56	0.78
SEE	0.12	23.09	0.77	0.23	0.88	0.22	0.10
NSP	0.08	0.58	16.77	0.11	0.66	0.10	0.09
AJS	1.23	4.18	2.00	17.20	2.21	1.91	1.67
JC	0.07	0.87	0.15	0.04	14.35	0.14	0.14
QM	1.43	3.75	3.23	3.49	5.08	14.74	2.30
CS	1.76	6.06	7.85	3.83	4.64	3.18	14.41
Others	2.27	4.47	4.31	3.14	7.06	3.43	3.88
UE information*							
Entry 1st quarter	26.61	31.89	43.54	30.68	28.92	29.18	27.69
Entry 2nd quarter	23.09	24.10	20.31	25.59	20.09	23.80	22.94
Entry 3rd quarter	22.56	21.65	23.23	24.95	25.83	24.66	25.87
Entry 4th quarter	27.74	22.37	12.92	18.79	25.17	22.36	23.50
Time in UE until (hyp.) program entry **	3.08	7.83	6.29	5.66	7.53	4.90	4.87
Regional information*							
UE rate in 2000	7.00	6.70	6.86	8.50	6.22	7.22	6.69

Fraction of UA recipients in 2001	32.34	32.04	31.66	43.50	28.08	35.17	32.14
Fraction long-term unemployed in 2000	19.68	18.96	20.36	29.22	14.97	21.99	18.93
Fraction of unemployed aged 50+ in 2000	21.03	20.29	21.24	26.14	17.58	22.45	20.44
Fraction of adolescents in 2000	14.84	15.20	15.77	11.87	16.05	14.14	14.99
Fraction of foreigners in 2000	9.63	9.56	7.99	9.86	9.20	9.64	9.61
Federal state*							
Burgenland	3.59	10.82	2.92	1.13	20.09	4.22	2.39
Carinthia	7.37	4.91	5.38	1.00	5.96	7.43	4.28
Lower Austria	16.80	18.90	38.62	11.65	7.95	19.62	7.42
Upper Austria	16.49	27.99	3.08	4.70	41.28	14.31	25.35
Salzburg	6.27	5.19	0.15	1.38	2.43	4.35	8.72
Styria	13.55	10.53	32.62	10.24	10.60	13.51	12.04
Tyrol	7.38	2.45	3.08	1.61	1.55	3.43	9.49
Vorarlberg	3.74	0.58	7.69	1.99	0.00	2.50	5.69
Vienna	23.44	17.32	5.08	65.03	7.28	29.51	23.26
Missing	1.37	1.30	1.38	1.27	2.87	1.12	1.36
Others*							
Metropolitan area >1 Mio.	23.44	17.32	5.08	65.03	7.28	29.51	23.26
Big city [100'000 -1 Mio.]	12.24	9.24	11.54	5.46	8.61	11.46	19.17
Medium size city <100'000	11.20	14.14	16.00	5.17	17.00	10.71	13.21
Urban area	6.85	7.65	8.92	5.17	2.21	8.34	3.94
Industrial area	34.11	41.56	47.23	14.50	54.53	32.15	32.14
Tourism	10.80	8.80	9.85	3.40	7.51	6.72	6.91
Missing	1.37	1.30	1.38	1.28	2.87	1.12	1.37
Employment status after (hyp.) program start*							
Employed after 1 year	61.95	37.27	41.05	53.06	37.23	50.97	59.01
Employed after 2 years	63.51	45.30	49.50	57.88	46.87	62.39	68.21
Employed after 3 years	64.45	49.36	53.60	58.92	53.02	65.52	69.77
Cumulated employment after 1 year **	6.19	2.74	2.74	4.22	3.11	3.59	4.72
Cumulated employment after 2 years **	13.67	7.76	8.29	10.52	7.91	10.24	12.08
Cumulated employment after 3 years **	21.15	13.05	14.05	17.00	13.07	17.50	19.81

Note: (*) numbers in %, (**) numbers in months. UE: unemployment, E: employment, OM: orientation measures, SEE: socio-economic enterprise. NSP: non-profit sector project, JC: job coaching, AJS: active job search, QM: qualification measure, CS: course subsidy. UB unemployment benefits, UA unemployment assistance.

Table 2a: Dropping observations in parental leave right before the (hyp.) program start

	NON		SEE		NPS		AJS		JC		QM		CS	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cases	51849	53493	350	343	301	349	9654	9662	210	243	6896	11337	4553	5597
No parental leave right before the (hypothetical) program entry														
Remaining cases	51739	52588	350	343	301	349	9653	9660	210	243	6896	11335	4550	5590

3. Results of the binary probit models

Table 2: Estimation results of all probit specifications for women

SEE versus non-partic.		NPS versus non-partic.		JC versus non-partic.		AJS versus non-partic.		QM versus non-partic.		CS versus non-partic.	
Const	-4.765 ***	Const	-3.082 ***	Const	-3.099 ***	Const	-2.468 ***	Const	-1.692 ***	Const	-2.360 ***
DISAB	0.691 ***	DISAB	0.576 ***	DISAB	0.378 ***	DISAB	0.247 ***	DISAB	0.599 ***	DISAB	0.300 ***
FOREIGN	0.055	FOREIGN	-0.404	FOREIGN	-0.304	FOREIGN	-0.104	FOREIGN	0.040	FOREIGN	0.001
FAMSIN	-0.059	FAMSIN	0.090	FAMSIN	0.280 ***	FAMSIN	-0.009	FAMSIN	-0.060 **	FAMSIN	0.020
FAMDIV	-0.016	FAMDIV	0.212 **	FAMDIV	0.219 **	FAMDIV	0.141 ***	FAMDIV	0.200 ***	FAMDIV	0.141 ***
FAMCOM	0.052	FAMCOM	0.180	FAMCOM	0.104	FAMCOM	0.011	FAMCOM	-0.041	FAMCOM	-0.024
FAMMISS	0.256 *	FAMMISS	0.516 ***	FAMMISS	0.371 **	FAMMISS	0.179 ***	FAMMISS	0.189 ***	FAMMISS	0.153 ***
EDMIS	-0.073	EDMIS	-0.219	EDMIS	-0.130	EDMIS	0.024	EDMIS	-0.097 ***	EDMIS	-0.122 ***
ED1	0.231 **	ED1	-0.027	ED1	0.159 **	ED1	0.070 ***	ED1	-0.112 ***	ED1	-0.140 ***
ED3	-0.165	ED3	-0.086	ED3	-0.510 ***	ED3	-0.014	ED3	-0.043 *	ED3	0.002
JAGGR	0.121	JAGGR	0.104	JAGGR	0.143	JAGGR	-0.189 **	JAGGR	-0.076	JAGGR	0.054
JJUR	-0.140	JJUR	0.114	JJUR	0.007	JJUR	0.131 ***	JJUR	0.314 ***	JJUR	0.258 ***
JHEALTH	-0.302 **	JHEALTH	-0.205	JHEALTH	-0.228	JHEALTH	-0.081 **	JHEALTH	0.090 ***	JHEALTH	0.196 ***
JTRADE	-0.124	JTRADE	-0.178 *	JTRADE	0.013	JTRADE	0.075 ***	JTRADE	0.136 ***	JTRADE	0.068 **
JSERV	-0.046	JSERV	-0.158 *	JSERV	-0.142	JSERV	-0.149 ***	JSERV	-0.090 ***	JSERV	-0.055 *
JMISS	-0.353 ***	JMISS	0.267 **	JMISS	0.016	JMISS	-0.394 ***	JMISS	0.001	JMISS	-0.018
EMPSM	-0.251 ***	EMPSM	-0.211 ***	EMPSM	-0.064	EMPSM	-0.037 *	EMPSM	-0.042 **	EMPSM	-0.025
EMPBIG	-0.006	EMPBIG	-0.052	EMPBIG	-0.111	EMPBIG	0.014	EMPBIG	-0.040 **	EMPBIG	-0.045 *
EMPHUGE	0.015	EMPHUGE	-0.173 **	EMPHUGE	0.137	EMPHUGE	-0.021	EMPHUGE	-0.053 **	EMPHUGE	-0.117 ***
EMPMISS	-0.430 ***	EMPMISS	0.058	EMPMISS	-0.278 **	EMPMISS	-0.185 ***	EMPMISS	-0.242 ***	EMPMISS	-0.309 ***
ALQ00	-0.112 ***	ALQ00	0.027	ALQ00	0.079 **	ALQ00	0.013	ALQ00	-0.038 ***	ALQ00	-0.011
LZA00Z	0.355 ***	LZA00Z	-0.052	LZA00Z	-0.153	LZA00Z	-0.028	LZA00Z	0.164 ***	LZA00Z	0.129 ***
JUG00Z	0.356 ***	JUG00Z	0.102	JUG00Z	-0.178	JUG00Z	-0.177 ***	JUG00Z	0.073 **	JUG00Z	0.049
AUSL00Z	-0.058	AUSL00Z	-0.299 ***	AUSL00Z	-0.070	AUSL00Z	-0.045 *	AUSL00Z	0.003	AUSL00Z	-0.011
REGIND	0.281 ***	REGIND	0.397 **	REGIND	-0.082	REGIND	0.009	REGIND	0.199 ***	REGIND	-0.077 ***
REGTOUR	0.666 ***	REGTOUR	-0.217	REGTOUR	-0.061	REGTOUR	0.249 ***	REGTOUR	0.100 *	REGTOUR	-0.135 **
VVZ	0.121 ***	VVZ	0.039	VVZ	-0.048	VVZ	0.085 ***	VVZ	-0.154 ***	VVZ	0.103 ***
JOBDIFF	0.330 ***	JOBDIFF	-0.028	JOBDIFF	0.000	JOBDIFF	0.352 ***	JOBDIFF	0.234 ***	JOBDIFF	0.134 ***
LLASTINC	0.362 *	LLASTINC	-0.003	LLASTINC	-0.301	LLASTINC	0.098 ***	LLASTINC	-0.074 ***	LLASTINC	0.183 ***
LINCLOW	0.163	LINCLOW	-0.115	LINCLOW	0.126	LINCLOW	-0.052 *	LINCLOW	-0.088 ***	LINCLOW	0.026
FOINCLOW	0.021	FOINCLOW	0.213	FOINCLOW	-0.360 *	FOINCLOW	-0.052	FOINCLOW	0.050	FOINCLOW	-0.117 **
DURLEMPH	0.073	DURLEMPH	-0.051	DURLEMPH	-0.119	DURLEMPH	-0.174 ***	DURLEMPH	0.144 ***	DURLEMPH	0.280 ***
MDURE2Z	-0.035	MDURE2Z	0.065	MDURE2Z	0.037	MDURE2Z	0.105 ***	MDURE2Z	0.111 ***	MDURE2Z	0.038 *
MDURUE2Z	0.081	MDURUE2Z	-0.005	MDURUE2Z	-0.051	MDURUE2Z	-0.679 ***	MDURUE2Z	-0.503 ***	MDURUE2Z	-1.470 ***
MDUOLF2Z	0.218	MDUOLF2Z	-0.444 **	MDUOLF2Z	0.046	MDUOLF2Z	0.014	MDUOLF2Z	0.066	MDUOLF2Z	0.019
FRACUE	0.179	FRACUE	0.106	FRACUE	-0.116	FRACUE	-0.637 ***	FRACUE	-0.774 ***	FRACUE	-0.512 ***
FRACE	-0.347 *	FRACE	-0.292 **	FRACE	-0.166	FRACE	0.148 ***	FRACE	-0.045	FRACE	-0.100 **
NOCENTR	0.013	NOCENTR	0.026	NOCENTR	-0.130	NOCENTR	-0.086 **	NOCENTR	-0.059 *	NOCENTR	-0.053
AGENTPR	0.008	AGENTPR	-0.006	AGENTPR	-0.004	AGENTPR	0.001	AGENTPR	-0.005 ***	AGENTPR	0.000
DIFLEMPZ	0.295 **	DIFLEMPZ	0.531 ***	DIFLEMPZ	0.677 ***	DIFLEMPZ	0.688 ***	DIFLEMPZ	0.550 ***	DIFLEMPZ	0.508 ***
LASTINCM	1.014 ***	EDACAD	0.127	EDACAD	0.496 ***	EDACAD	-0.014	EDNO	-0.219 ***	EDADV	0.054 *
FOEDBAS	-0.127	BNOE	0.309 **	LASTINCM	-0.644	FOEDAP	0.198 **	EDADV	0.121 ***	LASTINCM	0.593 ***
BBGL	0.005	BOOE	-0.384 ***	BBGL	0.008	FOEDHI	0.140	EDACAD	-0.062 *	FOSINGL	0.000
BOOE	0.016	BSTM	0.555 ***	BKTN	0.192	BBGL	-0.219 **	BBGL	0.233 ***	FONOCCL	0.163 **
BVBG	-0.875 ***	BVBG	-0.054	BNOE	0.637 ***	BKTN	-0.538 ***	BKTN	0.050	BBGL	-0.060
QUART1	0.243 **	BWIE	-0.092	BOOE	0.898 ***	BNOE	0.422 ***	BNOE	0.001	BKTN	-0.045
QUART4	-0.009	QUART1	0.627 ***	BSBG	0.065	BOOE	0.151 ***	BTIR	-0.137 ***	BNOE	-0.341 ***
INDTOU	0.009	QUART4	-0.144	BTIR	-0.069	BSTM	0.459 ***	BVBG	0.014	BOOE	0.428 **
INDAUTH	-0.462 ***	INDPROD	-0.292 ***	BSTM	0.140	BVBG	0.533 ***	BWIE	0.150 ***	BSBG	0.453 ***
INDTRTEL	-0.331	INDTOU	-0.459 ***	INDTOU	-0.052	BWIE	1.253 ***	QUART1	0.149 ***	BTIR	0.504 ***
INDTCN	-0.184	INDAUTH	0.147	INDPROD	0.162 *	QUART1	0.102 ***	QUART4	-0.159 ***	BVBG	0.477 ***
INDSHC	0.151	INDTRTEL	-0.233	INDTRTEL	-0.078	QUART4	-0.335 ***	INDTOU	0.005	BWIE	-0.459 ***
INDOTH	0.127 *	INDTCN	-0.841 **	INDTCN	-0.485 *	INDTOU	-0.065 **	INDAUTH	-0.014	QUART1	0.016
MDUREZ	0.048 *	INDCOM	-0.222 ***	NUMPR2	0.161 ***	INDAUTH	0.046	INDTCN	0.103 **	QUART4	-0.078 **
NUMPR2	0.086	INDSHC	0.214 **	LPRFBT	1.914 ***	INDTCN	0.133 **	INDSHC	0.087 ***	INDTOU	-0.074 ***
NUMPR5	0.103 ***	NUMPR2	0.146 ***	LPRFBQ	-0.153	INDSHC	-0.007	INDBAIT	0.035	INDAUTH	-0.013
LPRCOUNS	0.117	LPRCOUNS	-0.355	LPRKK	0.028	INDCOM	0.141 ***	INDCOM	0.133 ***	INDTCN	0.040
LPRSOB	2.369 ***	LPRGBP	2.445 ***	LPROTH	0.110	INDTRTEL	0.072 *	INDTRTEL	0.119 ***	INDSHC	0.068 **
LPRFBA	0.170	LPRKK	0.540 ***	FOALQ00Z	0.670 **	INDPROD	0.185 ***	INDPROD	0.140 ***	MDUOLF5Z	0.032 *
FODURE2Z	0.234 **	FODUROLZ	0.149 ***	NCLFBQ	1.032 ***	INDEWM	-0.048	MDURUEZ	0.104 ***	NUMPR2	0.129 ***
FODUREZ	-0.347 ***	FODUREZ	0.052	WIEFSIN	0.361 *	INDBAIT	-0.017	NUMPR2	0.171 ***	NUMPR5	0.027 *
DIFRAUE	0.079	DIFGBP	-0.068	QU1ED1	-0.115	MDURUEZ	0.124 ***	NUMPR5	0.047 ***	LPRFBA	0.182
DIFCOUNS	-0.498	DIFKK	-0.243	QU1REIND	0.173 *	NUMPR2	0.144 ***	FODUUE5Z	-0.213 **	LPRFBT	0.161
DIFSOB	-0.177	DISDIFL	-0.405 ***	QU4REIND	-0.202	NUMPR5	0.062 ***	LPRCOUNS	-0.134	LPRFBQ	0.234 ***
DIFJOB	-0.300 ***	DISGBP	-0.172	FONUMPR2	0.221 *	LPRCOUNS	-0.141 *	LPRSOB	0.205	LPRKK	1.202 ***
NCLSOB	-0.305	DIDUUE2Z	0.491 **	DIFBGL	0.700 ***	LPRSOB	0.148	LPRFBA	0.197 ***	LPRUGP	0.456 **
DISCOUNS	0.137	RINDAUSL	-0.521 ***	DIFNOE	-0.299 **	LPRGBP	0.317	LPRFBT	0.225	LPRUGPKK	0.598 *
DISSOB	-0.099	LOWREIND	0.328 **	DIFWIE	-0.464 **	LPRFBA	1.590 ***	LPRFBQ	1.344 ***	LPROTH	0.199 ***
DISFBQ	0.700 ***	LOWRETOU	0.452 **	DIFQU4	0.089	LPRFBQ	0.463 ***	LPRKK	0.216 ***	FODUREZ	-0.098 ***
DISDIFL	-0.430 ***	QU1REIND	0.125	NUIPROD	-0.211 **	LPRKK	0.301 ***	LPRUGP	0.393 **	FODUUE2Z	-0.265

Table 2 continued

DISED1	-0.241	QU4REIND	-0.317 *	QU4OTH	-0.679 *	LPRUGP	0.406	LPROTH	0.024	FODUROLZ	-0.013
DISREIND	-0.571 ***	DINUMPR5	0.018	BWIEED1	-0.081	LPROTH	0.058	FOEDNO	0.090	DIFFRAUE	0.322 ***
DISINLOW	0.191	DIFNOE	0.246 ***	BWIEED3	0.838 ***	FODURE2Z	0.030	FOEDHI	0.263 ***	DIFBBA	0.164
FOSOB	0.348	DIFSTM	-0.157			FODUREZ	-0.022	FODUREZ	-0.110 ***	DIFKK	-0.153 **
WIEDIS	-0.374 *	DIFVBG	0.863 ***			FODUE2Z	-0.241	FOCC2Z	0.197 ***	DIFJOB	-0.103 ***
LOWFSIN	0.201	DIFQU1	-0.498 ***			FOCCZ	0.021 *	FOCCZ	-0.026 **	NCLFBA	-0.263 *
DIFBGL	0.624 ***	DIFQU4	0.004			FOFRACUE	-0.164	DIFFRAUE	0.407 ***	NCLKK	-0.266 ***
DIFOOE	0.301 ***	RTOUED3	0.359 *			FONOC	-0.029	DIFCOUNS	-0.243 **	NCLFSIN	0.091
DIFSTM	-0.186 **	ED3JHEA	0.581 ***			DIFFRAUE	0.381 ***	DIFFBQ	-0.122 **	NCLFMISS	0.215 **
DIFQU1	-0.227 **	JMISED1	-0.528 ***			DIFSOB	0.237	DIFJOB	-0.127 ***	DISKK	0.016
DIFQU4	0.057	JMISREIN	-0.661 ***			DIFBBA	-0.159 ***	NCLFBA	-0.233 *	DISDIFL	-0.172 ***
DIISHC	0.437 **	NCLDIFL	0.047			DIFFBQ	-0.142 **	NCLFBQ	-0.036	DISRETOU	0.170
QU1SOB	0.075	NCLINCL	0.207			DIFKK	-0.072	NCLFSIN	0.054	DIDUE2Z	0.249 *
RINDED1	-0.285 ***	DIFJED1	0.133 *			DIFUGP	0.023	NCLFMISS	0.127	WIEDIS	-0.145
MDURUE2Q	0.112	MOFPR	-0.086 *			NCLFSIN	0.132 **	DISCOUNS	-0.080	DITMPR5Z	-0.043
DIFLEMPQ	0.109 ***					DIFJOB	-0.177 ***	DISFBQ	-0.321 ***	WIEFOREI	0.328 ***
FRACAMID	0.120					NCLFBA	-0.424 ***	DISDIFL	-0.314 ***	FONUMPR5	0.104 ***
FRACAHIG	0.695 ***					NCLFMISS	0.163	DISNOCL	0.025	DINUMPR5	-0.005
						DISFBA	-0.073	DISED1	-0.037	DIFNOE	-0.024
						DISDIFL	-0.207 ***	DISED3	0.242 **	DIFOOE	0.199 ***
						DISNOCL	0.090	DISINLOW	-0.101 *	DIFSTM	0.025
						DISED1	-0.140 **	WIEFSIN	-0.016	DIFVBG	-0.047
						WIEFMISS	-0.316 ***	WIEFCOM	0.126	DIFWIE	0.258 ***
						WIEFOREI	0.060	WIEFMISS	-0.149 **	DIFQU4	-0.087 **
						WIEDIS	0.058	RINDLZA	-0.094 ***	NUITCON	-0.103
						LOWREIND	0.105 ***	LOWREIND	0.055 *	NUICOM	-0.063 **
						LOWRETOU	0.045	LOWRETOU	-0.043	QU4KK	0.173 **
						LOWFSIN	0.092 ***	LOWFSIN	0.119 ***	RINDED1	-0.089 **
						LOWFDIV	0.031	LOWFDIV	-0.060	BWIEED1	0.063
						LOWFCOM	0.137 *	QU4REIND	-0.030	BWIEED3	-0.069
						DIDUREZ	-0.046 *	DIDUE2Z	0.271 **	MDURUE2Q	0.759 ***
						DIDUROLZ	-0.038	DIDURUEZ	-0.143 *	DIFLEMPQ	-0.010
						FOTMPR5Z	0.081	DITMPR5Z	-0.084	MOFPR	-0.222 ***
						FOSOB	0.055	FOTMPR2Z	0.019		
						FOFBA	0.090	FOTMPR5Z	-0.030		
						FONUMPR2	0.097 *	FOFBQ	0.280 **		
						DINUMPR2	-0.011	FONUMPR5	0.072		
						DIFBGL	0.265 ***	DINUMPR5	0.003		
						DIFKTN	0.272 ***	DIFKTN	0.454 ***		
						DIFNOE	-0.006	DIFNOE	0.135 ***		
						DIFSTM	0.040	DIFOOE	0.211 ***		
						DIFTIR	-0.020	DIFSBG	0.208 ***		
						DIFWIE	-0.221 ***	DIFSTM	0.141 ***		
						DIFQU1	-0.060 **	DIFTIR	0.175 **		
						DIFQU4	0.199 ***	DIFWIE	0.046		
						NUIPROD	-0.112 ***	DIFQU1	-0.099 ***		
						NUITCON	-0.085	DIFQU4	0.146 ***		
						NUICOM	-0.089 ***	NUIPROD	-0.089 ***		
						NUIBAIT	0.109 *	NUITCON	0.025		
						FOIPROD	-0.192 ***	NUICOM	-0.060 **		
						FOITCON	-0.350 **	NUIAUTH	0.096		
						FOICOM	0.087	DIIPRIM	-0.144		
						FOISHC	-0.013	DIITOU	0.153 **		
						FOITOU	0.055	RTOUED3	0.099		
						DIICOM	-0.016	NCLNUMP5	-0.031		
						QU1FBA	0.037	MOFPR	-0.238 ***		
						QU4FBA	-0.144 *				
						QU4FBQ	-0.145				
						QU4KK	0.211 **				
						MDURUE2Q	0.458 ***				
						DIFLEMPQ	0.018				
						MOFPR	-0.283 ***				

Note: Positive coefficients denote that the respective variable contributes positively to the participation probability in the program listed on top of each column. (*) significance on the 10 percent, (**) 5 percent, and (***) 1 percent level. SEE: socio-economic enterprise. NSP: non-profit sector project, JC: job coaching, AJS: active job search, QM: qualification measure, CS: course subsidy. The abbreviations used are explained in the following Table 4.

Table 3: Estimation results of all probit specifications for men

SEE versus non-partic.		NPS versus non-partic.		JC versus non-partic.		AJS versus non-partic.		QM versus non-partic.		CS versus non-partic.	
Const	-4.289 ***	Const	-4.744 ***	Const	-2.923 ***	Const	-2.730 ***	Const	-2.079 ***	Const	-2.419 ***
DISAB	0.702 ***	DISAB	0.792 ***	DISAB	0.165	DISAB	0.595 ***	DISAB	0.837 ***	DISAB	0.466 ***
FOREIGN	0.100	FOREIGN	-0.323 *	FOREIGN	-0.657 ***	FOREIGN	-0.302 ***	FOREIGN	-0.059	FOREIGN	-0.002
FAMSIN	-0.063	FAMSIN	0.159 **	FAMSIN	0.150 *	FAMSIN	0.008	FAMSIN	-0.069 ***	FAMSIN	-0.107 ***
FAMDIV	0.086	FAMDIV	0.102	FAMDIV	0.089	FAMDIV	0.049	FAMDIV	-0.004	FAMDIV	0.003
FAMCOM	0.017	FAMCOM	-0.071	FAMCOM	0.104	FAMCOM	-0.013	FAMCOM	-0.042	FAMCOM	-0.046
FAMMISS	0.119	FAMMISS	0.361 **	FAMMISS	0.073	FAMMISS	0.284 ***	FAMMISS	0.074	FAMMISS	0.016
EDMIS	-0.262	EDMIS	0.031	EDMIS	0.113	EDMIS	0.111 ***	EDMIS	0.027	EDMIS	0.015
ED1	0.220 **	ED1	-0.029	ED1	0.222 **	ED1	0.046 **	ED1	-0.016	ED1	-0.097 ***
ED3	-0.262 **	ED3	-0.325 *	ED3	-0.060	ED3	0.012	ED3	-0.021	ED3	0.042
JAGGR	-0.091	JAGGR	0.349 *	JAGGR	0.153	JAGGR	0.066	JAGGR	-0.110	JAGGR	-0.142
JJUR	-0.150	JJUR	-0.237	JJUR	-0.068	JJUR	0.187 ***	JJUR	0.160 ***	JJUR	0.127 ***
JENG	-0.084	JENG	-0.441 **	JENG	-0.224	JENG	0.213 ***	JENG	0.160 ***	JENG	0.146 ***
JHEALTH	-0.225	JHEALTH	-0.378 *	JHEALTH	0.064	JHEALTH	0.021	JHEALTH	0.071	JHEALTH	0.142 ***
JTRADE	-0.101	JTRADE	0.088	JTRADE	-0.295 **	JTRADE	0.097 ***	JTRADE	0.079 ***	JTRADE	0.085 ***
JSERV	-0.216 *	JSERV	-0.251 *	JSERV	-0.014	JSERV	-0.115 ***	JSERV	-0.018	JSERV	0.016
JMISS	-0.299 **	JMISS	0.216	JMISS	-0.192	JMISS	-0.293 ***	JMISS	0.092 ***	JMISS	-0.018
EMPSM	-0.151 *	EMPSM	-0.253 ***	EMPSM	-0.019	EMPSM	-0.076 ***	EMPSM	-0.118 ***	EMPSM	-0.033
EMPBIG	-0.059	EMPBIG	-0.051	EMPBIG	0.024	EMPBIG	0.058 ***	EMPBIG	0.078 ***	EMPBIG	-0.007
EMPHUGE	-0.072	EMPHUGE	-0.036	EMPHUGE	0.328 ***	EMPHUGE	0.126 ***	EMPHUGE	0.036	EMPHUGE	-0.040
EMPMISS	-0.085	EMPMISS	-0.002	EMPMISS	-0.608 **	EMPMISS	-0.177 ***	EMPMISS	-0.247 ***	EMPMISS	-0.216 ***
ALQ00	-0.024	ALQ00	0.059 **	ALQ00	0.031	ALQ00	-0.040 **	ALQ00	-0.023 **	ALQ00	0.013
LZA00Z	0.055	LZA00Z	-0.118	LZA00Z	-0.315 ***	LZA00Z	0.125 ***	LZA00Z	0.103 ***	LZA00Z	0.036
JUG00Z	0.348 **	JUG00Z	0.130	JUG00Z	0.064	JUG00Z	-0.108 **	JUG00Z	0.053	JUG00Z	0.123 **
AUSL00Z	0.115	AUSL00Z	-0.020	AUSL00Z	-0.134	AUSL00Z	-0.044 *	AUSL00Z	-0.005	AUSL00Z	0.076 ***
REGIND	0.068	REGIND	0.157	REGIND	-0.099	REGIND	0.066 **	REGIND	0.058	REGIND	-0.139 ***
REGTOUR	0.070	REGTOUR	-0.116	REGTOUR	-0.149	REGTOUR	0.343 ***	REGTOUR	0.137 ***	REGTOUR	-0.231 ***
VVZ	-0.086	VVZ	0.077 **	VVZ	-0.031	VVZ	0.105 ***	VVZ	-0.171 ***	VVZ	0.151 ***
JOBDIFF	0.215	JOBDIFF	0.130 *	JOBDIFF	0.061	JOBDIFF	0.386 ***	JOBDIFF	0.181 ***	JOBDIFF	0.128 ***
LLASTINC	0.186	LLASTINC	0.122	LLASTINC	-0.626 ***	LLASTINC	0.020	LLASTINC	-0.107 ***	LLASTINC	0.138 *
LINCLOW	0.038	LINCLOW	0.317 ***	LINCLOW	0.127	LINCLOW	0.005	LINCLOW	-0.108 ***	LINCLOW	0.017
FOINCLOW	0.081	FOINCLOW	0.050	FOINCLOW	0.050	FOINCLOW	-0.025	FOINCLOW	0.038	FOINCLOW	0.000
DURLEMPH	0.043	DURLEMPH	0.346	DURLEMPH	0.344	DURLEMPH	-0.287 ***	DURLEMPH	0.115 **	DURLEMPH	0.133 **
MDURE2Z	-0.073	MDURE2Z	0.143 *	MDURE2Z	-0.004	MDURE2Z	0.185 ***	MDURE2Z	0.169 ***	MDURE2Z	0.113 ***
MDURUE2Z	-0.151	MDURUE2Z	0.021	MDURUE2Z	-0.467	MDURUE2Z	-0.738 ***	MDURUE2Z	-0.758 ***	MDURUE2Z	-1.796 ***
MDUOLF2Z	-0.087	MDUOLF2Z	0.249	MDUOLF2Z	0.260	MDUOLF2Z	0.131 *	MDUOLF2Z	0.264 ***	MDUOLF2Z	0.083
FRACUE	0.903 **	FRACUE	0.257	FRACUE	0.444	FRACUE	-0.510 ***	FRACUE	-0.904 ***	FRACUE	-0.536 ***
FRACE	-0.355	FRACE	-0.594 ***	FRACE	-0.064	FRACE	0.090 *	FRACE	0.085	FRACE	0.078
NOCLENTN	0.151	NOCLENTN	0.187	NOCLENTN	-0.235	NOCLENTN	-0.119 **	NOCLENTN	-0.046	NOCLENTN	-0.077
AGENTPR	-0.007	AGENTPR	0.012 **	AGENTPR	0.007	AGENTPR	0.005 ***	AGENTPR	-0.006 ***	AGENTPR	-0.003 **
DIFLEMPZ	0.865 ***	DIFLEMPZ	0.604 ***	DIFLEMPZ	0.807 ***	DIFLEMPZ	0.759 ***	DIFLEMPZ	0.549 ***	DIFLEMPZ	0.542 ***
LASTINCM	-0.040	EDACAD	0.373 **	EDACAD	-0.082	EDACAD	-0.224 ***	EDNO	-0.252 ***	EDADV	0.129 ***
FOEDBAS	-0.395 ***	BNOE	0.901 ***	LASTINCM	-0.839 **	FOEDAP	0.093 *	EDADV	0.100 **	LASTINCM	0.352 **
BBGL	-0.323	BOOE	-0.268	BBGL	0.694 ***	BOEDHI	0.182 *	EDACAD	-0.155 ***	FOSINGL	0.164 ***
BOOE	0.041	BSTM	0.824 ***	BKTN	0.146	BBGL	-0.206 *	BBGL	0.467 ***	FONOCCL	0.162 *
BVBG	-0.822 **	BVBG	0.378	BNOE	0.377	BKTN	-0.542 ***	BKTN	0.130 **	BBGL	-0.075
QUART1	0.289 **	BWIE	-0.130	BOOE	0.658 ***	BNOE	0.152 **	BNOE	0.110 **	BKTN	-0.152 **
QUART4	-0.274 *	QUART1	0.337 **	BSBG	0.171	BOOE	0.003	BTIR	-0.201 ***	BNOE	-0.539 ***
INDTOU	-0.425 ***	QUART4	-0.605 ***	BTIR	-0.536	BSTM	0.045	BVBG	-0.190 ***	BOOE	0.088
INDAUTH	0.151	INDPROD	-0.105	BSTM	0.461 **	BVBG	0.300 ***	BWIE	0.231 ***	BSBG	0.201 ***
INDTRTEL	-0.085	INDTOU	-0.273 **	INDTOU	-0.285	BWIE	1.190 ***	QUART1	0.082 **	BTIR	0.255 ***
INDTCON	-0.105	INDAUTH	0.130	INDPROD	0.012	QUART1	0.064 *	QUART4	-0.061	BVBG	0.028
INDSHC	0.260 *	INDTRTEL	-0.766 ***	INDTRTEL	-0.107	QUART4	-0.386 ***	INDTOU	-0.050	BWIE	-0.531 ***
INDOTH	0.176 **	INDTCON	-0.226 *	INDTCON	-0.110	INDTOU	-0.034	INDAUTH	-0.123 **	QUART1	0.010
MDUREZ	0.043	INDCOM	-0.229 **	NUMPR2	0.190 ***	INDAUTH	-0.082	INDTCON	-0.105 ***	QUART4	-0.083 **
NUMPR2	0.125 **	INDSHC	0.389 ***	LPRFBT	2.277 ***	INDTCON	-0.180 ***	INDSHC	-0.037	INDTOU	-0.106 ***
NUMPR5	0.078 **	NUMPR2	0.319 **	LPRFBQ	0.308	INDSHC	0.000	INDBAIT	-0.086 *	INDAUTH	-0.045
LPRCOUNS	0.852 **	LPRCOUNS	-0.687 *	LPRKK	0.174	INDCOM	0.156 ***	INDCOM	0.130 ***	INDTCON	-0.155 ***
LPRSOB	2.313 ***	LPRGBP	3.186 ***	LPROTH	0.520 ***	INDTRTEL	-0.055 *	INDTRTEL	-0.019	INDSHC	0.041
LPRFBA	0.274 *	LPRKK	0.473 **	FOALQ00Z	0.718 *	INDPROD	0.057 *	INDPROD	0.102 ***	MDUOLF5Z	0.009
FODURE2Z	0.224 **	FODUROLZ	0.081	NCLFBQ	-0.033	INDEWM	-0.141	MDURUEZ	0.173 ***	NUMPR2	0.116 ***
FODUREZ	-0.187 ***	FODUREZ	-0.068	WIEFSIN	-0.127	INDBAIT	0.040	NUMPR2	0.190 ***	NUMPR5	0.070 ***
DIFFRAUE	-0.342	DIFGBP	-0.893 **	QU1RED1	-0.222	MDURUEZ	0.211 ***	NUMPR5	0.102 ***	LPRFBA	0.186
DIFCOUNS	-0.721 ***	DIFKK	-0.145	QU1REIND	0.222 *	NUMPR2	0.149 ***	FODUUE5Z	-0.145	LPRFBT	0.367
DIFSOB	-0.074	DISDIFL	-0.458 ***	QU4REIND	-0.107	NUMPR5	0.082 ***	LPRCOUNS	-0.084	LPRFBQ	0.367 ***
DIFJOB	-0.123	DISGBP	-0.759 *	FONUMPR2	0.221 *	LPRCOUNS	-0.229 **	LPRSOB	0.171	LPRKK	1.702 ***
NCLSOB	-0.507 *	DIDUUEZ	0.344	DIFBGL	0.460 ***	LPRSOB	-0.132	LPRFBA	0.210 ***	LPRUGP	0.117
DISCOUNS	-0.862 *	RINDAUSL	-0.340 **	DIFNOE	-0.099	LPRGBP	0.283	LPRFBT	0.423 *	LPRUGPKK	1.821 ***
DISSOB	-0.878 ***	LOWREIND	0.061	DIFWIE	-0.228 **	LPRFBA	1.707 ***	LPRFBQ	1.940 ***	LPROTH	0.249 ***
DISFBQ	0.184	LOWRETOU	0.182	DIFQU4	0.070	LPRFBQ	0.628 ***	LPRKK	0.192 ***	FODUREZ	-0.042 **

Table 3 continued

DISDIFL	-0.356 ***	QU1REIND	0.419 ***	NUIPROD	0.037	LPRKK	0.407 ***	LPRUGP	0.198	FODUUE2Z	-0.291
DISED1	-0.274 *	QU4REIND	0.240	QU4OTH	-0.576	LPRUGP	0.535 **	LPROTH	0.143 **	FODUROLZ	-0.046
DISREIND	-0.227	DINUMPR5	-0.118 **	BWIEED1	0.307	LPROTH	0.200 ***	FOEDNO	0.194 *	DIFFRAUE	0.381 ***
DISINLOW	0.239 *	DIFNOE	0.109	BWIEED3	0.816 ***	FODURE2Z	0.036	FOEDHI	0.164	DIFFBA	0.134
FOSOB	0.722	DIFSTM	-0.298			FODUREZ	0.023	FODUREZ	-0.034 **	DIFKK	-0.312 ***
WIEDIS	-0.317	DIFVBG	0.401 **			FODUUE2Z	-0.127	FOCC2Z	-0.280	DIFJOB	-0.091 **
LOWFSIN	0.341 ***	DIFQU1	-0.280 **			FOCCZ	0.227 **	FOCCZ	0.362 ***	NCLFBA	-0.429 **
DIFBGL	0.696 ***	DIFQU4	0.195 *			FOFRACUE	0.080	DIFFRAUE	0.582 ***	NCLKK	-0.400 ***
DIFOOE	0.233 **	RTOUED3	0.176			FONOCLE	0.058	DIFCOUNS	-0.288	NCLFSIN	0.133 *
DIFSTM	-0.213 **	ED3JHEA	0.426			DIFFRAUE	0.214 **	DIFFBQ	-0.385 ***	NCLFMIS	0.130
DIFQU1	-0.254 **	JMISED1	-0.164			DIFSOB	0.130	DIFJOB	-0.077 **	DISKK	-0.165
DIFQU4	0.076	JMISREIN	-0.324			DIFFBA	-0.259 ***	NCLFBA	-0.191	DISDIFL	-0.246 ***
DIISHC	0.156	NCLDIFL	0.002			DIFFBQ	-0.235 **	NCLFBQ	-0.230 **	DISRETOU	0.120
QU1SOB	1.270 ***	NCLINCL	0.160			DIFKK	-0.097	NCLFSIN	0.116 *	DIDUUE2Z	0.247 *
RINDED1	-0.235 *	DIFJED1	0.140			DIFUGP	-0.215	NCLFMIS	-0.055	WIEDIS	-0.133
MDURUE2Q	0.215					NCLFSIN	0.045	DISCOUNS	-0.216	DITMPR5Z	-0.075
DIFLEMPQ	0.038					DIFJOB	-0.201 ***	DISFBQ	-0.472 ***	WIEFOREI	0.010
FRACAMID	0.322 **					NCLFBA	-0.340 ***	DISDIFL	-0.371 ***	FONUMPR5	0.022
FRACAHIG	0.807 ***					NCLFMIS	0.145	DISNOCL	-0.088	DINUMPR5	-0.021
						DISFBA	-0.070	DISED1	-0.241 ***	DIFNOE	0.038
						DISDIFL	-0.322 ***	DISED3	0.129	DIFOOE	0.108 *
						DISNOCL	-0.011	DISINLOW	-0.024	DIFSTM	-0.094 *
						DISED1	-0.230 ***	WIEFSIN	0.042	DIFVBG	0.003
						WIEFMIS	-0.479 ***	WIEFCOM	0.225 ***	DIFWIE	0.233 ***
						WIEFOREI	0.101 **	WIEFMIS	-0.178 **	DIFQU4	0.055
						WIEDIS	-0.011	RINDLZA	0.036	NUITCON	0.102 **
						LOWREIND	0.092 **	LOWREIND	0.039	NUICOM	0.020
						LOWRETOU	0.166 **	LOWRETOU	-0.124 *	QU4KK	0.406 ***
						LOWFSIN	0.034	LOWFSIN	0.119 ***	RINDED1	-0.007
						LOWFDIV	-0.028	LOWFDIV	-0.030	BWIEED1	0.154 ***
						LOWFCOM	0.083	QU4REIND	-0.099 ***	BWIEED3	0.130 **
						DIDUREZ	-0.028	DIDUUE2Z	0.567 ***	MDURUE2Q	1.044 ***
						DIDUROLZ	-0.106 **	DIDURUEZ	-0.180 **	DIFLEMPQ	0.014
						FOTMPR5Z	-0.006	DITMPR5Z	-0.216 ***		
						FOSOB	1.117 **	FOTMPR2Z	0.230		
						FOFBA	0.114	FOTMPR5Z	-0.280		
						FONUMPR2	0.056	FOFBQ	0.253 **		
						DINUMPR2	-0.089 **	FONUMPR5	0.152 ***		
						DIFBGL	0.317 ***	DINUMPR5	-0.038		
						DIFKTN	0.242 **	DIFKTN	0.294 ***		
						DIFNOE	0.133 **	DIFNOE	0.271 ***		
						DIFSTM	0.199 ***	DIFOOE	0.327 ***		
						DIFTIR	0.156 **	DIFSBG	0.411 ***		
						DIFWIE	-0.159 ***	DIFSTM	0.185 ***		
						DIFQU1	-0.037	DIFTIR	0.431 ***		
						DIFQU4	0.184 ***	DIFWIE	0.102 **		
						NUIPROD	0.037	DIFQU1	-0.064 *		
						NUITCON	0.158 ***	DIFQU4	0.054		
						NUICOM	-0.042	NUIPROD	-0.105 **		
						NUIBAIT	0.043	NUITCON	0.198 ***		
						FOIPROD	0.025	NUICOM	-0.032		
						FOITCON	-0.111 *	NUIAUTH	0.139		
						FOICOM	0.013	DIIPRIM	-0.699 ***		
						FOISHC	0.390 ***	DIITOU	0.145		
						FOITOU	0.152 **	RTOUED3	0.193 **		
						DIICOM	-0.150 **	NCLNUP5	-0.038		
						QU1FBA	0.115				
						QU4FBA	-0.061				
						QU4FBQ	-0.118				
						QU4KK	0.192 *				
						MDURUE2Q	0.512 ***				
						DIFLEMPQ	0.038 *				

Note: Positive coefficients denote that the respective variable contributes positively to the participation probability in the program listed on top of each column. (*) significance on the 10 percent, (**) 5 percent, and (***) 1 percent level. SEE: socio-economic enterprise. NSP: non-profit sector project, JC: job coaching, AJS: active job search, QM: qualification measure, CS: course subsidy. The abbreviations used are explained in the following Table 4.

Table 3: Explanation of all variables

Abbreviation	Description	Abbreviation	Description
AGENTPR	Age at program entry	FOINCLOW	foreign*linclow
AGENTMID	(agentpr>=36) and (agentpr<46)	FONOCLE	foreign*nocletr
AGENTOLD	agentpr>=46	FONUMPR5	foreign*numpr5
AGIOTH	agentpr*indoth	FOREIGN	Foreigner
AGIPRIM	agentpr*indprim	FOSINGL	foreign*famsin
ALQ00	UE rate 2000	FOSOB	foreign*lprsob
AUSL00Z	Fraction of foreign unemployed 2000 / 10	FRACAHIG	frace*agentold
BBGL	Burgenland	FRACAMID	frace*agentmid
BKTN	Carinthia	FRACE	Fraction of overall observation period in employment
BNOE	Lower Austria	FRACUE	Fraction of overall observation period in unemployment
BOOE	Upper Austria	INDAUTH	Last employment sector: state authority
BSBG	Salzburg	INDCOM	Last employment sector: commerce
BSTM	Styria	INDOTH	Last employment sector: others
BTIR	Tyrol	INDPROD	Last employment sector: production
BVBG	Vorarlberg	INDSHC	Last employment sector: schooling, health, culture
BWIE	Vienna	INDSHC	Last employment sector: schooling, health, culture
BWIEED1	bwie*ed1	INDTCON	Last employment sector: construction
BWIEED3	bwie*ed3	INDTOU	Last employment sector: tourism
DIDUUE2Z	disab*mdurue2z	INDTRTEL	Last employment sector: transport & telecommunication
DIFBGL	diflmpz*bbgl	JAGGR	Profession: agriculture, forestry
DIFCOUNS	diflmpz*lprcouns	JENG	Profession: engineering
DIFFBA	diflmpz*lprfba	JHEALTH	Profession: health, education, culture
DIFFRAE	diflmpz*frace	JHEDIS	jhealth*diasbled
DIFFRAUE	diflmpz*fracue	JHEED3	jhealth*ed3
DIFGBP	diflmpz*lprgbp	JHEFEM	jhealth*female
DIFJED1	diflmpz* ed1	JJUR	Profession: law, administration
DIFJFEM	diflmpz* female	JMISED1	jmiss*ed1
DIFJOB	diflmpz*jobdiff	JMISEDM	jmiss*edmiss
DIFKK	diflmpz*lprkk	JMISREIN	jmiss*regind
DIFKTN	diflmpz*bktn	JMISS	Profession: missing
DIFLEMPQ	Time in UE until program entry (squared)	JOBDIFF	Wish for vocational change
DIFLEMPZ	Time in UE until program entry / 10	JSERV	Profession: service
DIFNOE	diflmpz*bnoe	JTRADE	Profession: commerce
DIFOOE	diflmpz*booe	JUG00Z	Fraction of adolescent unemployed 2000 / 10
DIFQU1	diflmpz*quart1	LASTINCM	Last income missing
DIFQU3	diflmpz*quart3	LINCLOW	Last income below median y/n
DIFQU4	diflmpz*quart4	LLASTINC	Log last income
DIFSBG	diflmpz*bsbg	LOWFSIN	linclow*famsin
DIFSOB	diflmpz*lprsob	LOWREIND	linclow*regind
DIFSTM	diflmpz*bstm	LOWRETOU	linclow*regtou
DIFTIR	diflmpz*btir	LPRCOUNS	Last program: OM
DIFVBG	diflmpz*bvbgb	LPRFBA	Last program: AJS
DIFWIE	diflmpz*bwie	LPRFBQ	Last program: QM
DIIPRIM	disab*indprim	LPRFBT	Last program: JC
DIISHC	disab*indshc	LPRGBP	Last program: NSP
DIITOU	disab*indtou	LPRKK	Last program: CS
DINUMPR5	disab*numpr5	LPROTH	Last program: others
DISAB	Disability	LPRSOP	Last program: SEE
DISCOUNS	disab*lprcouns	LPRUGP	Last program: BSU
DISDIFL	disab*diflmpz	LPRUGPKK	Last program: BSU+CS
DISED1	disab*ed1	LZA00Z	Fraction long-term unemployed 2000 / 10
DISFBQ	disab*lprfbq	MDUOLF2Z	Mean duration in OLF 2 years before UE entry / 10
DISGBP	disab*lprgbp	MDUOLF5Z	Mean duration in OLF 5 years before UE entry / 10
DISINLOW	disab*linclow	MDURE2Z	Mean duration in employment 2 years before UE entry / 10
DISKK	disab*lprkk	MDUREZ	Mean duration in employment overall before UE entry / 10
DISNOCL	disab*nocletr	MDUROLFZ	Mean duration in OLF before UE entry / 10
DISREIND	disab*regind	MDURUE2Q	Mean duration in unemployment 2 years before UE entry (squared)
DISRETOU	disab*regtou	MDURUE2Z	Mean duration in unemployment 2 years before UE entry / 10

DISSOB	disab*lprsob	MOFPR	Month of pregnancy right before the hypothetical program entry
DITMPR5Z	disab*totmpr5z	NCLCOUNS	nocentr*lprcouns
DURLEMPH	Duration of last employment / 100	NCLDIFL	nocentr*diflempz
ED1	edno+edbasic	NCLFBA	nocentr*lprfba
ED1JHEA	ed1* jhealth	NCLFBQ	nocentr*lprfbq
ED3	edhigh+edacad	NCLFMISS	nocentr*fammiss
ED3JHEA	ed3* jhealth	NCLFSIN	nocentr*famsin
EDACAD	Academic degree	NCLINCL	nocentr*linclow
EDADV	Vocational entrance degree	NCLKK	nocentr*lprkk
EDMIS	Schooling Missing	NCLNUMP5	nocentr*numpr5
EMPBIG	Size of last employer in persons: [100,499]	NCLSOB	nocentr*lprsob
EMPHUGE	Size of last employer in persons: >499	NOCLENTR	No UB claim at program entry
EMPMISS	Size of last employer in persons: missing	NUIAUTH	numpr2*indauth
EMPSM	Size of last employer in persons: <10	NUICOM	numpr2*indcom
EPHED1	emphuge* ed1	NUIOTH	numpr2*indoth
EPMREIND	empmis*regind	NUIPROD	numpr2*indprod
FAMCOM	Living community	NUITCON	numpr2*indtcon
FAMDIV	Family status: divorced	NUMPR2	Number of programs 2 years before program entry
FAMMISS	Family status: missing	NUMPR5	Number of programs 5 years before program entry
FAMSIN	Family status: single	QU1GBP	quart1*lprgbp
FECC2Z	female*totmcc2z	QU1KK	quart1*lprkk
FEDIV	female*famdiv	QU1REIND	quart1*regind
FEDUOL5Z	female*totmcc5z	QU1SOB	quart1*lprsob
FEDUREZ	female*mdurez	QU4FBQ	quart4*lprfbq
FEDUROLZ	female*mdurolfz	QU4KK	quart4*lprkk
FEDURUEZ	female*mduuez	QU4REIND	quart4*regind
FEDUUE5Z	female*mduue5z	QU4REIND	quart4*regind
FEED1	female*ed1	QUART1	Entry into UE: 1st quarter of the year
FEED3	female*ed2	QUART4	Entry into UE: 4th quarter of the year
FEFBQ	female*lprfbq	REGIND	Industrial environment
FEIAUTH	female*indauth	REGTOUR	Touristic environment
FEIBAIT	female*indbait	RINDALQ	regind*alq00z
FEICOM	female*indcom	RINDAUSL	regind*ausl00z
FEIHOU	female*indhau	RINDED1	regind*ed1
FEINCLW	female*linclow	RINDFEMA	regind*female
FEIOTH	female*indoth	RINDLZA	regind*lza00z
FEIPRIM	female*indprim	RTOUED1	regtou*ed1
FEIPROD	female*indprod	RTOUED3	regtou*ed3
FEISHC	female*indshc	TOTCOUNS	totmpr5z*lprcouns
FEITCON	female*indtcon	TOTFBA	totmpr5z*lprfba
FEITOU	female*indtou	TOTFBQ	totmpr5z*lprfbq
FEITRTEL	female*indtrtel	TOTFBT	totmpr5z*lprfbt
FEKK	female*lprkk	TOTGBP	totmpr5z*lprgbp
FEMALE	female	TOTKK	totmpr5z*lprkk
FENOCL	female*nocentr	TOTMCC2Z	Number of months in child care 2 years before UE entry / 10
FENUMPR2	female*numpr2	TOTMCC5Z	Number of months in child care 5 years before UE entry / 10
FENUMPR5	female*numpr5	TOTMCCZ	Number of months in child overall / 10
FEOTH	female*lproth	TOTMPR2Z	Number of months in programs 2 years before UE entry / 10
FESINGL	female*famsin	TOTOTH	totmpr5z*lproth
FETMPR5Z	female*totmpr5z	TOTSOB	totmpr5z*lprsob
FOALQ00Z	foreign*alq00	VVZ	Number of job offers / 10
FODURE2Z	foreign*mdure2z	WIEDIS	bwie*disab
FODURE2Z	foreign*mdure2z	WIEFDIV	bwie*famdiv
FODUREZ	foreign*mdurez	WIEFEMAL	bwie*female
FODUROLZ	foreign*mdurolfz	WIEFOREI	bwie*foreign
FODUUE2Z	foreign*mduue5z	WIEFOREI	bwie*foreign
FOEDBAS	foreign*edbasic	WIEFSIN	bwie*famsin
FOFBQ	foreign*lprfbq		

4. Graphical results

This section comprises graphical results that are mentioned in the paper, but not listed for brevity reasons.

Figure 1: Effects on unemployment by gender

Note. Results based on matching estimation. Abscissa: Months after program entry. Ordinate: Difference of employment rates. Symbols indicate that the effect is statistically different from zero at the 95% level. SEE: socio-economic enterprise, NPS: non-profit sector project, JC: job coaching, AJS: active job search, QM: qualification measure, CS: course subsidy. Participants (male/female): SEE (343/340), NPS (300/347), JC (206/243), AJS (9641/9638), QM (6869/11330), CS (4549/5587).

Figure 2: Effects for men ≥ 40 years on employment and unemployment

Note. Results based on matching estimation. Abscissa: Months after program entry. Ordinate: Difference of employment rates. Symbols indicate that the effect is statistically different from zero at the 95% level. AJS: active job search, QM: qualification measure, CS: course subsidy.