

# Do Policy Reforms Change the Probability of Treatment? Evidence for Further Training Programs in Germany

Stefan Bender\*, Bernd Fitzenberger\*\*,

Marina Furdas\*\*\*, Olga Orlanski\*\*\*

August, 2012

Preliminary version, please do not quote!

**Abstract:** This paper investigates the impacts of policy changes in active labor market regulation in Germany on the probability to receive training. This study is the first to use a unique and comprehensive administrative data containing information on a 50% subsample of participants in further training and retraining over a period of more than 20 years (1980 to 2004). Our analysis focuses on two important policy reforms from the 1980s and evaluate the intention-to-treat effect for five training programs – Practising Firms, Short-Term Training, Further Training, Retraining, and Wage Subsidies. We use a difference-in-difference identification strategy and control for seasonality, elapsed unemployment duration, cohort effects, and a number of individual characteristics. Our main conclusion is that reform impacts are indeed heterogeneous with respect to the type of treatment, which in turn indicates a potential shift within the different training programs.

**Keywords:** program evaluation, further training, reform effects, administrative data, Germany

**JEL-Classification:** J64, J68, H43

---

\* Institute for Employment Research, Nuremberg, Germany.

\*\* Albert-Ludwigs University Freiburg, Germany, IFS, IZA, ZEW.

\*\*\* Albert-Ludwigs University Freiburg, Germany.

This paper is part of the project “Policy change, effect heterogeneity, and the long-run employment impacts of further training programs” (“Politikänderung, Effektheterogenität und die längerfristigen Beschäftigungswirkungen von Fortbildung und Umschulung”, IAB project number: 1213-10-38009). Financial support by the IAB and BA is gratefully acknowledged. The responsibility for all errors is, of course, ours.

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Reforms of Further Training</b>	<b>3</b>
2.1	Reform 1982 (The Law for the Consolidation of Employment Promotion, AFKG) . . . . .	3
2.2	Reform 1986 ("Training offensive") . . . . .	5
<b>3</b>	<b>Data and Descriptive Evidence</b>	<b>7</b>
3.1	Data Sources . . . . .	7
3.2	Evaluated Programs . . . . .	10
3.3	Graphical Analysis . . . . .	12
<b>4</b>	<b>Identification Strategy</b>	<b>15</b>
<b>5</b>	<b>Results</b>	<b>17</b>
<b>6</b>	<b>Conclusions</b>	<b>21</b>

# 1 Introduction

Policy changes in form of potential discontinuity sources or statistical instruments have gained an increased importance within the field of treatment evaluation. Most of the time, current policy reforms are in the center of attention for studies analyzing policy change effects. Whereas there already exist several investigations about the so called Hartz–reforms in Germany (see, for example, Bonin and Schneider 2006; Schneider and Uhlendorf 2006; Rinne et al. 2009; Csillag et al. 2006), the reforms of the last decades of the 20th century are almost missing in the evaluation research. However, policy changes in further training regulation could serve as a fruitful source for future evaluation research, as these are the part of the Employment Promotion Act (Arbeitsförderungsgesetz) mostly reformed. In the last decades of the 20th century, the Active Labor Market Policy (ALMP) in Germany has undergone substantial changes. Originally, the ALMP programs have primarily functioned as subsidies into the human capital of motivated employees. Nowadays, further training is implemented mainly as a tool for crisis management, with the focus shifting from motivated employees to target groups such as unemployed persons immediately threatened by unemployment (see Bender et al. 2005).

This study is the first to investigate reform effects in the field of further training in Germany in the 1980s. We hereby concentrate on two important policy changes with different objectives. The Law for Consolidation of Employment Promotion 1982 aimed primarily at cutting costs, whereas the Training Offensive from 1986 induced a major expansion of the existing training programs. In our analysis, we evaluate the impact of the two reforms on the treatment probability for five programs: Practice Firms, Short–Term Training, Further Training, Retraining, and Wage Subsidies.

This paper is also the first to use a comprehensive data set, which has been compiled specifically for the purpose of investigating long–term reform effects. It contains a sufficiently large number of individual observations both across regions and over time, as well as individual characteristics and information on employment and treatment history. The scope of the data ensures a sufficient number of observations both before and after the analyzed reform took place and is therefore particularly well suited for an analysis of policy effects. We use a 50% subsample of participants in further training and retraining programs (FuU data) as well as a 50% subsample of the IEB database (Integrated

Employment Biographies) and combine both (program- and transfer payment-related) information to identify the treatment group. The control group, i.e. group of non-participants, contains individuals from the above mentioned databases as well as from an additional 3% IEB subsample.

When analyzing reform impacts on treatment probabilities, we proceed in two ways. First, we use aggregated data on entry quotes grouped by cohort and time and second, we estimate the intention-to-treat effect employing a difference-in-difference identification strategy. We concentrate on treatments received in the first twelve months after entering unemployment. In the empirical analysis we use individuals on either side of the reform threshold and compare them to unemployed individuals from one year before the underlying reform took place. This estimation approach enables us to control for seasonal effects in the probability of treatment, cohort effects, possible seasonality in the incidence of unemployment, and a large number of individual and job-specific characteristics from previous employment. We allow the intention-to-treat impacts to vary with the elapsed unemployment duration and to differ between males and females. Based on our results, we conclude that reform impacts are indeed heterogeneous with respect to the type of treatment. While for some training programs the probability of treatment react according to our expectations and display discontinuities at the date of the reform, for other treatments the reform effects contradict our expectations or are altogether absent. Looking at Practice Firms or Wage Subsidies, we can determine clear anticipation effects. The effect heterogeneity might be explained by the fact that the respective reform did not affect the existing programs in the same way. Reform 1982, for instance, aimed at reducing the extent of the offered programs. This is reflected in a discontinuous decline in entry quotes for treatments with longer duration like Retraining, while treatments with shorter duration like Short-Term Training or Practising Firms exhibit either a positive effect or no effect at all. This result in turn indicates a potential shift within the different treatments. In addition, we find a certain heterogeneity with respect to the elapsed unemployment duration.

The remainder of this paper is structured as follows. Section 2 discusses the institutional background. Section 3 describes the data and the evaluated programs and gives a first descriptive picture of the policy effects. Section 4 presents the estimation approach.

The empirical results are reported and discussed in section 4. Section 5 concludes.

## **2 Reforms of Further Training**

The history of further training regulation in Germany is characterized by repeated policy interventions associated with frequent drawbacks and expansions of available programs. The number of programs and courses offered was being guided by financial resources of the Federal Employment Office (Bundesagentur für Arbeit, BA) rather than by real educational needs on the labor market. The resulting "stop-and-go-financing" is connected to the political cycle and can be attributed primarily to the cyclical sensitivity of labor market policy due to its dependence on social insurance contributions. Because of this financing mechanism, one is confronted with a decrease of revenues even if they are badly needed for the labor market policy. Moreover, in a time of recession, the expenditures for unemployment benefits or unemployment assistance increase and these expenditures are competing with expenditures for active labor market programs (see Faulstich et al. 2004).

In this study, we consider two reforms from the 1980s with very different goals. The policy intervention from 1982, The Law for the Consolidation of Employment Promotion (Arbeitsförderungskonsolidierungsgesetz, AFKG) has a restrictive character and was shaped along the line of economic efficiency and cost effectiveness, whereas the "training offensive" in 1986 was characterized by expansion of the number of offered training programs.

### **2.1 Reform 1982 (The Law for the Consolidation of Employment Promotion, AFKG)**

The Law for the Consolidation of Employment Promotion (AFKG) became effective on 1 January 1982. This reform was developed in a period of a dismal labor market situation and aimed primary at cost-cutting and saving. After the decision of the Federal Government to reduce the grants for the BA from about 6 billion DM to 3.9 billion DM, the BA attempted to compensate the cutbacks by alternative channels. Hence, the gap in the BA-budget originated by the adopted reform should be eliminated by reducing maintenance

payments for the active labor market policy. In the general explanation about the AFKG, it was pointed out that in times of adverse conditions on the labor market, one should design the labor market instruments more efficiently and cost effectively. More precisely, the AFKG brought the following changes for the Active Labor Market Policy (ALMP). On the one hand, the target group of training programs was restricted to unemployed and persons immediately threatened by unemployment.<sup>1</sup> On the other hand, the AFKG reduced the maintenance payments from 80% to 75% of the former net wage for participants with children and to 68% for participants without children. Moreover, the maintenance payments were henceforth granted only to social insurance contributors. The assistance conditions mentioned above refer solely to so-called "essential participation". This term refers to unemployed persons or individuals who are threatened by unemployment. In the case of "advisable" (but not essential) participation, the maintenance payments were converted in a loan amounting to 58% of the former net wage.

Because of these saving measures of the AFKG, we expect that participation in ALPM programs to decrease after the reform. Another important feature of this policy change was the intended reduction of program length, which is again based on the principles of economicalness and cost efficiency (see IAB [1] and [2] as well as Steffen (2009)).

Table 1 gives an overview of the savings achieved by single measures of the AFKG for further training. It shows that the greatest contribution stems from changeover of maintenance into the loan form for advisable but not essential participation as well as from cutback of program length. By contrast, the decrease of the maintenance rate is of little importance for the savings. Potentially, the cutback of program length could lead to a decrease of longer programs like retraining and conversely to an increase of shorter programs like *Practice Firms* and *Short-Term Training* programs (for the program description see part 3.2). Therefore, the directives of the AFKG could result in a shift of participation in favor of less extensive program types. It is evident from these regulations that the existing training programs can be affected by the reform to a different degree.

---

<sup>1</sup>The preferential treatment for unemployed by the reform 1982 (in the program assignment phase) is enacted in a Circular Decree of the BA from April 14,1982 (see Bender et al. 2005).

Table 1: Savings achieved by single measures of the AFKG in 1982

<b>Saving measures in further training</b>	<b>Savings in billion DM</b>
reduction of maintenance payments from 80% to 75% for participants with children or for 68% for participants without children	100
changeover of maintenance into the loan form if participation is advisable but not essential	445
cancelation of maintenance for persons who do not contribute to social insurance	150
cutback of program length by orientation on principles of economicalness and cost efficiency	300
limitation of wage subsidy programs to unemployed and persons who are immediately threatened by unemployment	60
reduction of professional education aid	40
total	1,095

Source: IAB, Chronik der Arbeitsmarktpolitik, Das Arbeitsförderungskonsolidierungsgesetz.

## 2.2 Reform 1986 (“Training offensive”)

Relating to the goals, the reform 1986 is contradistinctive to the reform 1982 described above and is associated with the term “training offensive”. The training offensive is regulated in the 7th amendment of the Employment Promotion Act, EPA (*Arbeitsförderungsgesetz, AFG*). The 7th EPA amendment was adapted on 20 December 1985 and became effective on 1 January 1986. The reform was initiated in a time of economic upswing and a favorable budgetary situation, and aimed at supporting the qualification offensive of the Federal Government.

With this reform, the administration reacted to discussions about the coexistence of job vacancies and millions of unemployed. Lots of firms could not fill their vacancies because of a lack of eligible candidates. Professional qualifications of job seekers were often not sufficient or not suitable to the job profile of the respective vacancies. In order to fill this gap on the labor market, the Federal Government along with several economic organizations, unions, and the BA, started the qualification offensive. By increasing learning opportunities and financial incentives (in form of enhancement of income maintenance), the unemployed should be motivated to attain the missing qualifications.

The 7th amendment focused on the intensified promotion of further training and re-training programs. This reform represents the most important improvement of the general conditions in the ALMP for the period before 1997. The further amendments to the Employment Promotion Act contained primarily restrictions and cutbacks.

The reform implicated the following modifications for the further training programs. After having decreased the income maintenance in the past period, this aid form was again increased by the reform 1986 from 70% to 73% for participants with children and from 63% to 65% for participants without children. In the case of advisable participation, the maintenance in loan form was again to be treated as a compulsory benefit with a legal claim and not as an arbitrary payment. In addition, the wage subsidy could also be allowed in a temporary employment relationship (see IAB [1] and [3]). Besides the 7th EPA amendment, several implementation instructions or circular decrees were published. The Circular Decree "About the Individual Promotion of Further Training and Retraining: Qualification Offensive" from 21 February 1986 had a stronger focus on the further training programs. This Circular Decree explicitly targets a quantitative goal, namely by proclamation of "qualification in reserve" (see Bender et al. 2005). Therefore, the reform 1986 was being aimed not only at the qualitative goals like efficiency increase but also at the quantitative dimension. "Qualification in reserve" indicates that the entry numbers in further training programs will not necessarily correspond to the progress of the number of unemployed. As qualitative goal of this reform, the "adjustment of curricula according to the success metrics of placement and employment chances" can be mentioned (see Bender et al. 2005).

After a rapid rise in entries in further training programs 1986 – which are associated with an enormous expansion of budget – the BA wanted to stop a further expansion of the number of participants. Instead, the focus of ALMP shifted towards an increase in the quality of programs. In the Circular Decree from July 15, 1987, it has been said that the promotion of further training must be consolidated at the current level (relating to quantity); instead, the qualitative goals are to be preferred. "Quality rather than quantity" – this watchword dominated henceforth the discussion about the ALMP.

The new qualitative goals for further training programs are also formulated in another Decree of the BA (Decree "Quality and Placing of Mandated Programs"). This Decree



argues that the expansion of mandated programs is attended by an increasing responsibility of employment agencies concerning quality assurance. Furthermore, it defines the quality standards for the employment agencies (see Sauter 1987).

It is interesting that the training offensive 1986 is accompanied by a considerable increase in the proportion of female participants, from 33.5% in 1985 to 35% in 1986 and to over 36% in 1987. The former director of the BA, Heinrich Franke, ascribed this fact to the improved aid possibilities for women.<sup>2</sup> Although the reform 1986 increased the proportion of women in further training programs, this proportion still lay below the female quota among unemployed.<sup>3</sup> Both shares have not converged until the 1990s.<sup>4</sup>

Because of the offensive character of this reform, one can expect a (discontinuous) jump in the entry quotes after 1986.

## 3 Data and Descriptive Evidence

### 3.1 Data Sources

This study uses a new large database which combines different administrative register data collecting individual information on further training program participation in Germany.<sup>5</sup> Our data is unique concerning the length of the observation period (it covers a period of 25 years lasting from 1980 to 2005) as well as the number of observations (50% of all individuals that had been in training for at least once). This paper is the first to use the new data set for an empirical analysis.

The database draws on two different sources: The *IEB* data (Integrierte Erwerbs-

---

<sup>2</sup>See Bundesanstalt für Arbeit [1]; Computerwoche, 1986.

<sup>3</sup>See Zeit Online, 1987.

<sup>4</sup>See Bundesanstalt für Arbeit [1] and [2].

<sup>5</sup>The data was generated within the scope of the project "Policy Change, Effect Heterogeneity, and the Long-Run Employment Effects of Further Training" (Project Nr. 1213-10-38009). Our data are similar to the data described in Bender et al. 2005. Preparing the data, we go back to the well documented experiences of Stefan Bender, Annette Bergemann, Bernd Fitzenberger, Michael Lechner, Ruth Miquel, Stefan Speckesser, and Conny Wunsch (the project group in the previous FuU project "About the Impact of Further Training Programs"). The main advantage of the new data is its large sample size. While Bender et al. 2005 used merely a 1% subsample, the current study is based on two 50% subsamples (see below).

biografien),<sup>6</sup> and the *St35* data. The *IEB* data is based on daily records from employers and/or the Federal Employment Office (BA) on health insurance. It encloses employment register data for all employees subject to social insurance contributions for the years from 1971 to 2004 and provides a complete history about employment and unemployment periods with transfer payments from the BA as well as a wide range of personal and job-specific characteristics. Our primary evidence on program participation is drawn from the *St35* data or the so called *FuU* data. The *FuU* data consists of monthly based information about participation in further training programs, retraining, and other training programs and is collected from the BA for control and statistical purpose. The *FuU* data comprises the time period from 1976 up to 1997. For the empirical analysis, the two data sources are prepared starting in 1980 due to reasons of data reliability.

For our analysis, we use a 50% subsample with participants of training programs from the *FuU* data as well as a 50% subsample with program participants from the *IEB* data.<sup>7</sup> As none of the two separate data sources contain information on all treated individuals, combining them allows us to construct a complete database for the entire treatment group. In addition, a 3% subsample from the *IEB* data without any program participation is used as a control group. All subsamples were drawn according to the so called "birthday concept". In both 50% subsamples, one draws 50% of all possible birthdays, starting on January 2nd, and then selecting every second day, which results in 182 birthdays.<sup>8</sup> The 3% *IEB* subsample was also drawn according to the birthday concept, except that one takes 12 of the 182 birthdays mentioned above and excludes records that have already been drawn before.

The raw data had a spell form and contained a lot of temporal overlaps. We carried

---

<sup>6</sup>In this project, we do not use the "traditional" version of the *IEB* data, but a special one which is adapted according to the BLH variable structure. In contrast to the conventional *IEB* version, our *IEB* version only contains information from BeH (Beschäftigten-Historik) and LeH (Leistungsempfänger-Historik of the IAB).

<sup>7</sup>Program participants in *IEB* data are identified on the basis of transfer payment information (income maintenance payments related to the participation in training programs).

<sup>8</sup>After the subsample drawing, the *IEB* data was split into two parts. The first part contains the overlap between the *FuU* and *IEB* data and was designed for the merge procedure of both data sets, see below. The second part consists of program participants who can be identified only by means of transfer payment information, but not on the basis of the *FuU* data.

out numerous corrections (mostly based on Bender et al. 2005) in order to improve the quality of the data and to prepare them for the empirical analysis. The most important data preparation step involved extending the *FuU* data with information from *IEB*.<sup>9</sup> The merge procedure was based on a personal identification number and additional criteria like consistency in time structure and contents of the corresponding spells. The resulting data set, henceforth merged *FuU-IEB* data, is the most important data source in this study. It contains more information compared to the 50% *IEB* subsample and it allows a more precise and detailed identification of treatment types.<sup>10</sup> For all data sources the following data preparation steps were carried out: adjustment of temporal overlaps between different types of spells, correction of the education variable (according to imputations rules developed by Fitzenberger et al. 2006), and generation of monthly based data.

For the empirical analysis, we use the aggregated data, which consists of all mentioned data sets (the merged *FUU-IEB* data, the 50% *IEB* subsample, and the 3% *IEB* subsample). In order to correct for the fact that individuals are sampled according to the birthday concept we use sampling weights in the underlying empirical analysis.<sup>11</sup>

From the three data sources we constructed samples according to a cohort design concept.<sup>12</sup> We restrict our attention to a population of individuals flowing into unemployment after experiencing an employment period of at least three months. The cohort design concept allows flexibility with respect to calendar time and enables us to follow up individuals for a certain period. In this paper we do concentrate on the probability to be treated (start a training program) in the first twelve months after flowing into unemployment. Further sample restrictions are made with respect to age. We consider only individuals aged between 25 and 50 years at the time of flowing into unemployment

---

<sup>9</sup>An analogous merge procedure was being carried out in the project "About the Impact of Further Training Programs". In this project, three data sources (1% subsample of *FuU*, *IABS*, and *LED* data) were used for the fusion (see Bender et al. 2005).

<sup>10</sup>In the merged data, the identification of treatment status and types of training programs is based on combining participation information from *FuU* data with transfer payment information from the *IEB* data. By doing so, we give priority to the program information from the *FuU* data. In contrast, the treatment periods in the 50% *IEB* subsample can be identified only using the transfer payment information.

<sup>11</sup>The sampling weight is the reciprocal of the probability with which an individual is selected from a given data set.

<sup>12</sup>See for comparison the pooled stratified approach by Sianesi (2003, 2004).

in order to avoid biased results in treatment probability due to some age-specific labor market programs, for instance, for the youth or the elderly.

## 3.2 Evaluated Programs

In this paper we evaluate the effect of the policy interventions in 1982 and 1986 on five different types of training programs. For the construction of treatment indicators, we basically follow the classification developed in Fitzenberger and Speckesser (2007) and applied in Fitzenberger and Völter (2007). In this study, we focus on two further training programs – Practice Firms (PF) and Provision of Specific Professional Skills and Techniques (SPST), short-term training programs according to §41a Employment Promotion Act (STT), Retraining (RT), and Wage Subsidy Programs (WS).<sup>13</sup>

*Practice Firms (PF)* are programs of about six months, which provide the participants with general skills appropriate for a wide range of jobs. These simulated firms train people on everyday working activities, focusing either on technical tasks (practising firms) or commercial tasks (practising enterprises). These programs have rather exercising than qualifying character. One of the PF's goals is to assess the participant's eligibility for a particular field of profession. The programs do not provide official certificates.

In contrast, *Specific Professional Skills and Techniques (SPST)* programs focus on the provision of more specific professional skills like computer or accounting courses. A completed vocational training degree is mostly required for the participation in further training. The training is mostly theoretical, even though some practical experience might also be provided, and provides a certificate in case of successful completion of the program. The aim of SPST is to ease reintegration into the labor market by improving skills and providing signals to potential employees.

The *Short-Term Training (STT)* programs were intended in 1979 to fill the gap within the already existing programs by focusing on hard-to-pace and low-skilled individuals. In these short-term training courses, job seekers were to be informed about employment options as well as about participation in more comprehensive programs. In addition, they were taught some limited skills, mainly in term of class-room training, covering job counseling, application and communication training, and contact to potential employees.

---

<sup>13</sup>In the Employment Promotion Act, STT belonged to further training.

In general, the maximum length was six weeks and there was no exam at the end of the course (Schneider, 1981). Due to a shortage in budget, *STT* programs were eliminated 1992 and only gained in importance again starting 1999 with another program design (see Fitzenberger et al. 2012).

The difference of *retraining (RT)* compared to the above programs is that participants actually receive a completely new qualification in form of vocational training. Most of its participants have already obtained a vocational training before and are unable to find a job within their occupation. It is, however, also available for individuals without any prior qualification, but restricted by additional eligibility criteria. Retraining combines both theoretical and practical training, with a duration of up to three years. After successful completion, participants are provided with a widely accepted formal certificate, signaling job qualification in order to improve the job match.

Participants in the training programs described above are granted income maintenance (IM, Unterhaltsgeld). To qualify, they must have been employed for at least one year or they must be entitled to unemployment benefits or subsequent unemployment assistance (see Fitzenberger and Völter 2007).

*Wage Subsidies (WS)* aimed at the reintegration of unemployed with placement barriers into the labor market. This partial wage subsidy should reduce the competitive disadvantages of long-time unemployed by preparing the participant for the workplace requirements. During participation, individuals received no maintenance payments from the Employment Office (BA). Instead, the employer received the subsidy and was bound to paying the participants the usual agreed wage. No formal certification was required in this program.

Since the treatment information from the *FuU* data allows a more detailed differentiation of treatment types compared to the transfer payment information from the *IEB* data, the treatment types in both data sources do not exactly correspond. While we can identify several sub-types of further training in the merged *FuU-IEB* data set<sup>14</sup>, the 50% *IEB* subsample comprises information on further training only in general. In order to take this problem into account, we apply an exact multiple imputation of treatments. Using

---

<sup>14</sup>*Practice Firms (PF)*, *Provision of Specific Professional Skills and Techniques (SPST)*, and *Promotion (PM)* are the most important sub-treatments. The sub-type PM is not evaluated in this study because it was basically intended to employed rather than to unemployed individuals.

information on a broad range of personal characteristics, employment and treatment history, we estimate the probability of each sub-treatment of further training in the merged data and impute the estimated coefficients into the 50% *IEB* subsample as weights. In doing so, we replicate the history of further training participants according to the number of sub-treatments and then assign the corresponding weights to each replication.

Concerning retraining, we are confronted with another identification problem in the 50% *IEB* subsample. In the *FUU-IEB* merged data, several sub-types of further training are classified as retraining because of similar program characteristics. This applies to the courses "technician" and "business economist", for which we observe a higher training duration on average compared to other training programs. Consistency between both data sets is ensured by classifying further training programs with a length over 18 months as retraining in the 50% *IEB* subsample, rather than as further training.

### 3.3 Graphical Analysis

In order to gain a first descriptive picture of whether the probability of treatment changes in response to a policy intervention, we start our analysis with a graphical examination based on aggregated data. For this purpose, we construct samples for each reform separately according to the cohort design and categorize individuals into groups (cells) identified by cohort and time. In order to ensure an equal size of data pairs on either side of the reform axis, more unemployment cohorts are drawn before than after the policy change.<sup>15</sup> Thereafter, the sample for the reform 1982 begins in January 1980 and ends in December 1983, whereas the sample for the reform 1986 lasts from December 1983 to January 1988. Because each cohort might be followed up for 12 months after starting unemployment, we end up with 468 data pairs for the reform 1982 and 494 data pairs for the reform 1986, respectively. The main variable of interest,  $DQ_{ct}^P$ , is the aggregated entry quote into treatment  $P$ , where  $P = \{PF, STT, SPST, RT, WS\}$ . It is expressed as the fraction of unemployed individuals who start a program  $P$  in month  $t$  and belong to a particular cohort  $c$  relative to the total number of unemployed individuals in month  $t$  from cohort  $c$ .

---

<sup>15</sup>The asymmetry of observations arises from the cohort design concept, which produces ex-ante more data points the further out in time the cohort starts.

The distribution of aggregate treatment rates is given in Figure 1 to Figure 5 for reform 1982 and in Figure 6 to Figure 10 for reform 1986, respectively. Panel A reports simply the raw data for all data pairs with each observation point showing one particular month and one particular unemployment cohort. The black lines indicate the entry quotes for the different cohorts whereas the black smoothed lines on either side of the reform axis are obtained by a local constant kernel regression of entry quotes on time. The vertical line shows the time the reform becomes effective. The pictures with the raw data suggest a strong seasonal pattern, especially for STT, SPST, and RT, and much less marked cohort effects in the treatment quotes. The treatment rate is in general low at the end of the summer, reaching its highest value in the months thereafter (September and October) and decreases noticeably in December. The December effect is most pronounced for entry quotes into WS. Figure 5 suggests a long-term decreasing trend before the policy change, whereas in the reform year there are much less deviations observed. On the other hand, entry quotes into PF are characterized more strongly by cohort effects than by seasonal patterns. Interestingly, from the beginning of the sample 1986 we observe only a moderate change in the development of entry quotes into PF. However, just half a year before the policy intervention there is a remarkable jump, which might be driven by some anticipation effects. The increase at the threshold is in contradiction with what one would expect, considering the fact that reform 1986 has an expansive policy character. Another interesting result is that for reform 1986, the entry quotes show less seasonal patterns in the months before than in the months after the policy change.

As the effect of the policy intervention is going to be identified on a threshold between two different calendar months, just comparing entry quotes on either side of the vertical line (January versus December) is going to produce biased results for the policy effect. Aggregate entry rates are therefore adjusted for calendar month effects in the following way. First, we regress observed treatment quotes on twelve calendar month dummies and some polynomial function of cohort membership. In order to capture differences in seasonality pattern in the year before and after the reform, we do the estimation on either side of the threshold separately. The seasonal-adjusted entry quotes are calculated as the difference between observed entry quote into treatment  $P$  and the estimated coefficients for calendar months normalized according to their mean values. Finally, non-adjusted and

seasonal-adjusted series are estimated nonparametrically in order to capture their general shape over time.<sup>16</sup> Results are provided in Panel B of Figure 1 to Figure 10, respectively. The dashed line refers to the nonparametric curve obtained from the raw data (non-adjusted), whereas the colored lines display the shape of the estimated curves for seasonal-adjusted data and differ with respect to the polynomial order in cohort membership.

The data from Panel B indicate that the shape of the estimated curve in entry quotes does not depend much on cohort effects. However, it turns out that policy interventions might have caused the impact on the probability of treatment to differ with respect to the type of treatment. The graphical analysis suggest that short- and long-term training programs might react differently to policy changes, depending on whether the intervention has an expansive or a restrictive character. Not surprisingly, we find that short-term training programs react immediately to expansive policy changes. For instance, the entry quotes in STT do not change discontinuously due to reform 1982, but show a significant increase due to reform 1986. On the other hand, the restrictive policy reform from 1982 is going to induce much more pronounced discontinuity in treatment probabilities in long-term programs. One of the reasons might be due to the fact that the aimed savings were explicitly targeted at large and comprehensive training such as retraining and further training. Entry quotes into RT, for example, fall from 0.11% in December 1981 to 0.08% in January 1982, which leads to an absolute change of 0.03 percentage points or 27%, respectively. The decline in SPST entry quotes is also visible, but is of much less magnitude. We also find interesting and somewhat surprising results for practising firms and wage subsidies. Entry quotes into PF show discontinuity at the cut-off point for both reforms, but in the opposite direction. For reform 1982, this might be the result of some sort of redistribution and shifting among the different training programs, i.e. targeted reduction of long-term training programs at the expense of other, short-term programs. The observed sharp discontinuity in entry quotes into PF between January 1986 and December 1985 might be interpreted as evidence for anticipation effects. Even after seasonal adjustment of the data, the treatment quote increases sharply at the end of the year 1985 and then decreases rapidly after the policy change was introduced. Last but not least,

---

<sup>16</sup>We perform a local constant kernel regression using the Gaussian kernel function and applying the Silverman's rule-of-thumb for bandwidth selection.



based on the graphical examination we do not find any clear evidence for discontinuity changes in entry quotes into WS, for neither of the reforms.

## 4 Identification Strategy

The focus of this paper is to assess the effect of an intervention in further training regulation in Germany on the probability to receive training. This effect measures the impact of the “intention to treat” (ITT) which is conceptually different from the actual treatment effect that refers to the impact of training on some post unemployment labor market outcome. The ITT effect is identified on the threshold between two policy regimes and measures the expected difference in the probability of treatment when an unemployed person is exposed to the new policy regime rather than to the old one.

In order to identify the ITT effect properly it is necessary to control for any systematic differences in the treatment probability that are not caused by the policy intervention. As the data from Figure 1 to Figure 10 suggest, a simple mean comparison of treatment rates shortly before and shortly after the policy change would yield biased results for the causal effect of interest. There are at least three reasons for this. First, individuals on the threshold emerge from different unemployment cohorts. Second, even after controlling for cohort effects, a large individual heterogeneity with respect to the elapsed unemployment duration has to be taken into account. In fact, the probability of being treated depends on how much time has been passed since individuals enter unemployment. Individuals being at the beginning of their unemployment period are therefore not comparable to individuals that have been unemployed, for instance, for five or six months, even if they belong to the same unemployment cohort. Finally, the graphical analysis emphasizes a strong seasonal pattern in the probability to receive treatment. In years without policy changes we observe a significantly lower treatment rate in December than in January, independent of the type of treatment considered. Therefore, a simple mean comparison of individuals in those two calendar months would lead to biased results, especially for the reform 1986 due to its expansive character.

In order to take account of the problems mentioned above, a difference-in-difference strategy is implemented in this paper. We use individuals with  $m$  months of elapsed

unemployment duration in reform years and compare them to individuals with  $m$  months of elapsed unemployment duration one year before the reform took place. Thus, the idea of comparing individuals shortly before and shortly after the policy intervention is constructed for the last calendar year without policy intervention in further training regulation. The identification of the reform effect relies on the comparison between individuals from two years (the reform year and one year before) as well as on the comparison between individuals that are still unemployed at the turn of a calendar year. A similar identification strategy has been used by Dustmann and Schönberg (2012) to evaluate the impact of expansions in maternity leave regulation on long-term children’s outcomes.<sup>17</sup>

We estimate an equation of the following form

$$(1) \quad D_{i,t}^P = \beta_0^P + \beta_1^P R_{i,t} + \beta_2^P Z_{i,t} + \beta_3^P R_{i,t} \cdot Z_{i,t} + \sum_t \gamma_t^P CM_{i,t} + \sum_k \alpha_k^P X_{i,k} + u_{i,t}^P$$

where  $D_{i,t}^P$  is an indicator variable equal to one if individual  $i$  receive treatment  $P$  in calendar month  $t$  with  $t = 1, \dots, 12$  and zero if no treatment occurs,  $R_{i,t}$  is a dummy variable equal to one if individual  $i$  belongs to the reform year,  $Z_{i,t}$  is a dummy variable indicating whether individual  $i$  is still unemployed shortly after the threshold (in or after January), the interaction term  $R_{i,t} \cdot Z_{i,t}$  refers to the effect of the policy intervention, and  $CM_{i,t}$  is a dummy variable indicating the calendar month  $t$  the individual  $i$  is still unemployed.  $X_i$  is a vector of covariates including the following individual characteristics: (i) person-specific variables like age, gender, nationality, family status and education; (ii) occupation- and business-specific characteristics from previous employment spell like employment status, log earnings, firm size, occupation, and industry structure; (iii) individual work history and indicators for treatment participation in the past; (iv) regional information on state level (German “Bundesländer”). The variables used for the empirical analysis are described in Table 2.

Equation (1) is estimated separately for each policy intervention and for each of the first twelve months after individuals enter unemployment,  $m = 1, \dots, 12$ . We therefore do not select individuals on their unemployment start as we have done in the graphical analysis but with respect to their elapsed unemployment duration. Based on the difference-in-difference identification strategy, this approach allows us to control additionally for seasonal effects in the incidence of unemployment. Similar to the study by

---

<sup>17</sup>See also among others Johanson and Palme (2005), Petrongolo (2009), Lalive and Zweimüller (2009).

Dustmann and Schönberg (2012), we estimate equation (1) first using only one month on either side of the reform (December and January) and then extending the sample incrementally by one calendar month. Our widest specification includes individuals that have been unemployed for  $m$  months half a year before and after the policy change (July to December versus January to June).

The key parameter of interest is the difference-in-difference (DiD) estimator  $\beta_3^P$ . It identifies the causal effect of a policy intervention on the probability to receive treatment  $P$  under the assumption that seasonal effects are on average the same for observations from the reform year ( $R_{i,t} = 1$ ) and observations from the year without policy reform ( $R_{i,t} = 0$ ). The graphical analysis from the last section suggests that the identification assumption is likely to be violated in two cases – for wage subsidies (reform 1982) and practising firms (reform 1986). In the first case, a large decreasing trend from the beginning of the sample (January 1980) was observed and continued until December 1981. In the case of practising firms, we detect an uncommon behavior in the probability to receive this type of treatment. While during the second half of the year 1984 we do not find any striking evidence in  $PF$  treatment quotes, a large unprecedented increase appears shortly before the reform. We interpret this as an anticipation effect which is of course against the underlying identification assumption.

## 5 Results

In this section we report preliminary results on the intention-to-treat effect, which measures the impact of a policy intervention on the probability to receive a particular type of treatment. The results are obtained by an OLS regression based on equation (1). We control for cohort effects, seasonality in treatment rates as well as seasonality in the incidence of unemployment, and a large set of individual characteristics. We perform the analysis by gender as well as separately for each reform and each type of treatment. In addition, the reform effect is allowed to vary with elapsed unemployment duration. Descriptive evidence for control variables used in our empirical analysis are presented in Table 3 and Table 4 for reform 1982 and in Table 5 and Table 6 for reform 1986, respectively. For reasons of simplicity, means and standard errors are presented on average for all months

of elapsed unemployment duration and solely for our widest model specification (January to June versus July to December).

The results of the OLS estimation are presented in Tables 7–16 for reform 1982 and in Tables 17–26 for reform 1986, respectively. The results are presented first for males and then for females. We report the DiD estimator for the intention-to-treat effect, the corresponding standard error and the number of clusters. We cluster standard errors at the individual level for two reasons. First, individuals could enter the estimation sample more than once if they experience a repeated unemployment in a short period of time. Second, the treatment imputation performed for the 50% *IEB* subsample lead to a multiple replication of individuals receiving any further training programs. The first two columns in each Table refer to the most restrictive specification and includes individuals that are unemployed for at least  $m$  months in December or in January in the reform year and in the last year before the reform. The first column reports results without covariates, while in the second column a vector of individual characteristics is included in the regression. We expand the estimation sample stepwise by one calendar month on either side of the reform axis. Due to perfect collinearity, December and January are excluded from the analysis when more than two calendar months are used for estimation.

On the whole, the results obtained on the basis of individual observations confirm the main finding from the graphical analysis. Namely, the considered reforms induce different impacts on the probability of treatment and are highly heterogeneous with respect to the type of treatment. In addition, we find mixed results regarding gender and the months of elapsed unemployment duration. Considering the model specification with only two calendar months on the either side of the threshold, the intention-to-treat impacts are rarely significant. However, extending the estimation sample, the corresponding estimates gain precision and remain fairly robust. Another interesting finding is that the inclusion of other controls such as individual characteristics and variables characterizing previous employment and variables indicating former treatment participation does not affect the main parameter of interest. In the following the most interesting results obtained from estimation are summarized each of the evaluated treatment type separately.

**Practising Firms** The findings reported in Table 7 and Table 12 provide a very consistent picture of the impact of reform 1982 on the probability to receive PF. We only

observe reform effects that are not statistically significant from zero, regardless of gender. On the other hand, when considering the results with respect to the expansion from 1986, the policy effect becomes negative and highly significant in almost all model specifications. The results do not differ much with respect to the elapsed unemployment duration. As the graphical analysis suggested, the negative sign of the estimated intention-to-treat effect is in contradiction to what we would expect and can almost certainly be explained by the enormous participation rate discovered in the second half of 1985. Due to this anticipation effect, the identification assumption of the underlying estimation approach is very likely to be violated, therefore we do not put too much emphasis on these results.

**Short-term training.** The results for short-term training suggest that the policy change from 1982 does not induce much significant shifts in the intention-to-treat. It turns out that the probability to receive this type of treatment decreases significantly only for individuals with seven months of unemployment duration in the male sample and for individuals with five months of elapsed duration in the female sample, respectively. However, STT is the most responsive training program to the policy expansion in 1986. Consider first the results for males. Not surprisingly, the estimated intention-to-treat effects become larger with the time having passed since unemployment entry. For example, the largest effects are detected for men that have been unemployed for at least one year around the threshold (in response to the reform, the probability of treatment decreases by about 0.13 percentage points (see column 2 of Table 18)). The result is consistent with the objectives of STT and might be explained by the corresponding target group of this type of treatment, namely the group of long-term unemployed individuals. Interestingly, we find only a weak evidence for significant policy effects in the female sample.

**Further training.** Considering further training, we find mixed evidence for reform 1982. The estimated coefficients often change their sign and magnitude and are in most cases not significantly different from zero. However, a substantive negative effect is detected for shorter unemployment durations (for  $m = 3$  in the male sample and for  $m = 2$  in the female sample, respectively). On the other side, the probability to receive SPST was positively and significantly affected by the training offensive from 1986. For males, the policy effect reaches values of about 0.1 to 0.2 percentage points and is highly significant for an average duration of approximately seven months of elapsed unemployment duration.

It also turns out that males being unemployed for a maximum of three months gained most from the expansive character of the policy change. But this is not true for females. Our findings suggest that women benefit most from the training offensive at the beginning of their unemployment period.

**Retraining.** For this type of treatment a clear discontinuity due to reform 1982 can be observed in the male sample. This finding is consistent with the underlying objectives of the policy change, namely an intervention mainly for long-term training programs like retraining. It turns out that after the reform the treatment probability is significantly lower but mostly for the first 3 months of unemployment. Results in Table 10 suggest no policy impact for a larger unemployment duration which is also in accordance with the idea that the most expensive and long-lasting programs were intended to individuals at the beginning of their unemployment duration. For the training offensive, however, there is no clear policy discontinuity observed, either for males nor for females.

**Wage subsidies.** The results for WS show a mixed picture. In line with the objectives of the policy intervention, the effect due to reform 1982 is mostly negative for the specification including only two calendar months around the threshold. For instance, the probability of treatment decreases by about 0.025 percentage points for males with one month of elapsed unemployment duration and by about 0.056 percentage points for males with seven months of elapsed duration, respectively. As the estimation sample becomes larger the estimated parameters turn their sign. A similar pattern is observed for the female sample too. We argue that the positive coefficients are mostly driven by the uncommon decreasing trend one year before the reform took place. As we mentioned before, this might be interpreted as a violation of the identification assumption. An interesting result is obtained also for the policy change in 1986. The intention-to-treat impacts go into the opposite direction and are highly significant for individuals with a relatively short unemployment duration (up to three months for males and one months for females, respectively) or with a relatively large elapsed duration (twelve months, regardless of gender).

## 6 Conclusions

This paper has investigated the effects of policy interventions from the 1980s on the probability to start an active labor market program in Germany. We use large administrative data containing comprehensive information on program participation and evaluate five types of treatment: practising firms, short-term training, further training, retraining, and wage subsidies. We focus on two reforms with different aims – the restrictive policy intervention from 1982 and the training offensive from 1986 aiming at the expansion of offered training programs.

When analyzing reform impacts on treatment probabilities, we proceed in two ways. First, we use aggregated data on entry quotes grouped by cohort and time and second, we estimate the intention-to-treat effect using a difference-in-difference identification strategy. Our findings suggest that the various types of treatment react differently to the induced policy change. For example, we find strong discontinuities at the threshold for long-term training programs primarily as a result of the restrictive reform from 1982. In contrast, the expansive policy change in 1986 is going to increase treatment probabilities for short-term training programs and, to a lesser extent, for further training and retraining. Our results also reveal evidence for possible anticipation effects when analyzing treatment probabilities in practising firms and wage subsidies.

The empirical analysis in this study concentrates solely on the impacts of policy changes on the probability to receive training. Nevertheless, the results obtained here might be seen as a first step in the evaluation of long-run impacts of program participation on post-unemployment labor market outcomes. When policy changes induce exogenous variations in treatment probabilities, they might be used as an instrument to deal with simultaneity between program participation and post-unemployment outcomes. The results in this study show, however, that policy discontinuities might be employed as an instrument only in a limited number of cases.

## References

- Bender, Bergemann, Fitzenberger, Lechner, Miquel, Speckesser und Wunsch (2005):  
Über die Wirksamkeit von FuU-Maßnahmen. In: IAB (ed.): Beiträge zur Arbeitsmarkt-  
und Berufsforschung, BeitrAB 289, Nürnberg.
- Bonin and Schneider (2006): Wirksamkeit der Förderung der beruflichen Weiterbildung  
vor und nach der Hartz-Reform, Wirtschaftspolitische Blätter, 2006, 53 (2), pp.  
155–165.
- Bundesanstalt für Arbeit (ed.): Förderung der beruflichen Bildung/Weiterbildung, Nürn-  
ber (various issues). [1]
- Bundesanstalt für Arbeit (ed.): Amtliche Nachrichten der Bundesanstalt für Arbeit  
(ANBA), 1993. [2]
- Csillag, Schneider, Uhlenhof, and Zhao (2006): The Impact of Labor Market Reform  
on the Effectiveness of Training Programs in Germany,  
[http://www.iza.org/conference\\_files/SPEAC2006/schneider\\_h499.pdf](http://www.iza.org/conference_files/SPEAC2006/schneider_h499.pdf).
- Dustmann, C. and U. Schönberg (2012): Expansions in Maternity Leave Coverage  
and Children’s Long-Term Outcomes. American Economic Journal: Applied Eco-  
nomics, Vol 4, Nr. 3, 190–224.
- Faulstich, Gnahn, and Sauter (2004): Systemqualität in der beruflichen Weiterbildung.  
Fragestellungen, Konsequenzen und Alternativen nach Hartz. Published by Friedrich-  
Ebert-Foundation, pp. 1–34.
- Fitzenberger, Orlanski, Osikominu, and Paul (2012): Déjà Vu? Short-Term Training in  
Germany 1980–1992 and 2000–2003, forthcoming in Empirical Economics.
- Fitzenberger, Osikominu, and Völter (2006): Imputation Rules to Improve the Education  
Variable in the IAB Employment Subsample, Journal of Applied Social Science  
Studies (Schmollers Jahrbuch) 126 (3), 2006, pp. 405–436.
- Fitzenberger and Speckesser (2007): Employment Effects of the Provision of Specific  
Professional Skills and Techniques in Germany, Empirical Economics, Vol. 32, No.



2/3, pp. 529–573.

Fitzenberger and Völter (2007): Long-Run Effects of Training Programs for the Unemployed in East Germany, *Labour Economics*, Volume 4, Issue 4, pp. 730–755.

IAB (ed.): Chronik der Arbeitsmarktpolitik, Die wesentlichen Änderungen im Bereich des Arbeitsförderungsgesetzes seit 1969,  
[http://doku.iab.de/chronik/31/1993\\\_06\\\_20\\\_31\\\_diew.pdf](http://doku.iab.de/chronik/31/1993\_06\_20\_31\_diew.pdf). [1]

IAB (ed.): Chronik der Arbeitsmarktpolitik, das Arbeitsförderungskonsolidierungsgesetz (AFKG),  
[http://doku.iab.de/chronik/31/1981\\_07\\_30\\_31\\_dasa.pdf](http://doku.iab.de/chronik/31/1981_07_30_31_dasa.pdf). [2]

IAB (ed.): Chronik der Arbeitsmarktpolitik, die 7. Novelle zum AFG,  
[http://doku.iab.de/chronik/32/1985\\_10\\_02\\_32\\_die7.pdf](http://doku.iab.de/chronik/32/1985_10_02_32_die7.pdf) [3]

Lalive, R. and J. Zweimüller (2009): How does Parental Leave Affect Fertility and Return-to-Work? Evidence from Two Natural Experiments. *Quarterly Journal of Economics*, 124, 1363–1402

Petrongolo, B. (2009): The long-term effects of job search requirements: Evidence from the UK JSA reform. *Journal of Public Economics* 93, 1234–1253.

Rinne, Uhlendorff, and Zhao (2009): Vouchers and Caseworkers in Public Training Programs: Evidence from the Hartz Reform in Germany,  
[http://www.eea-esem.com/files/papers/EEA-ESEM/2009/2518/qs\\_esem2009.pdf](http://www.eea-esem.com/files/papers/EEA-ESEM/2009/2518/qs_esem2009.pdf).

Sauter (1987): Qualitätssteigerung in der beruflichen Weiterbildung,  
[http://www.edudoc.ch/static/infopartner/mediothek\\\_fs/bis\\\_1997/012328.pdf](http://www.edudoc.ch/static/infopartner/mediothek\_fs/bis\_1997/012328.pdf)).

Schneider (1981): Erfahrungen mit "41a", *Arbeit und Beruf* 4/1981, pp. 97–99.

Schneider and Uhlendorff (2006): Die Wirkung der Hartz-Reform im Bereich der beruflichen Weiterbildung, *Zeitschrift für ArbeitsmarktForschung/Journal for Labour Market Research*, 2006, 39 (3–4), pp. 477–490.

Sianesi (2003): Differential effects of Swedish Active Labour Market Programs for Unemployed Adults in the 1990s, Discussion Paper, Institute for Fiscal Studies, London.

Sianesi (2004): An Evaluation of the Swedish System of Active Labor Market Programs in the 1990s, Review of Economics and Statistics 86, 133–155.

Steffen (2009): Sozialpolitische Chronik,

[http://www.arbeitnehmerkammer.de/cms/upload/Politik/Sozialpolitische\\\_Chronik.pdf](http://www.arbeitnehmerkammer.de/cms/upload/Politik/Sozialpolitische\_Chronik.pdf).

*Online newspapers/Journals:*

Computerwoche from December 5, 1986, Die Qualifizierungsoffensive läuft,

<http://www.computerwoche.de/heftarchiv/1986/49/1167165/index.html>.

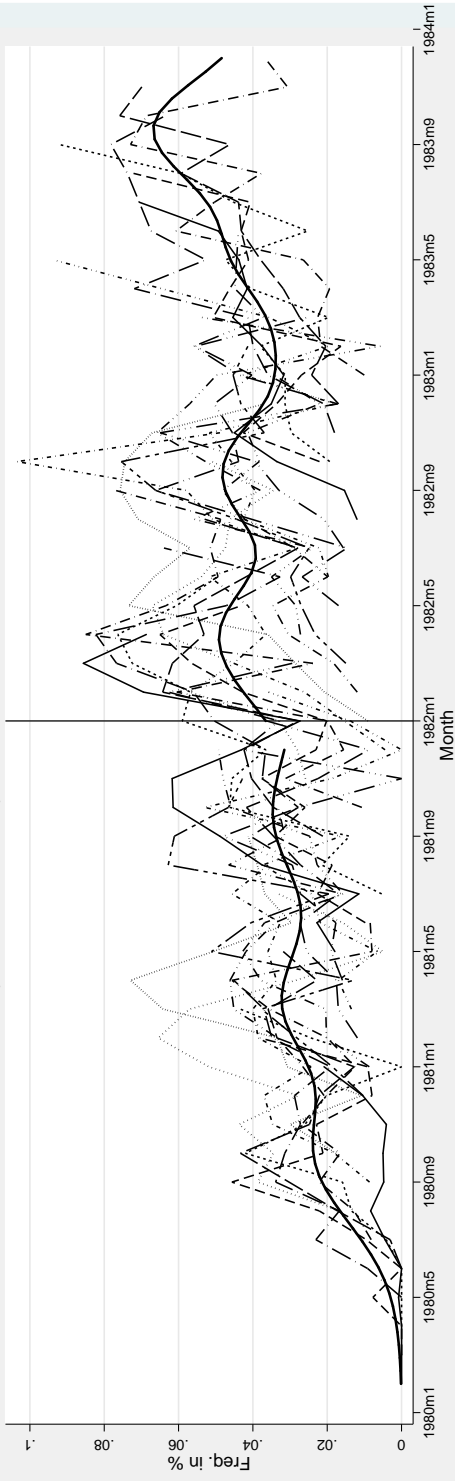
Zeit Online from April 10, 1987, Chancen für die Arbeitslosen,

<http://www.zeit.de/1987/16/chancen-fuer-die-arbeitslosen/seite-3>.

# Appendix

Figure 1: Entry quotes in practising firms, reform 1982

Panel A: Entry quotes in PF by cohorts and time, raw data, reform 1982



Panel B: Entry quotes in PF by cohorts and time, nonparametric estimation, reform 1982

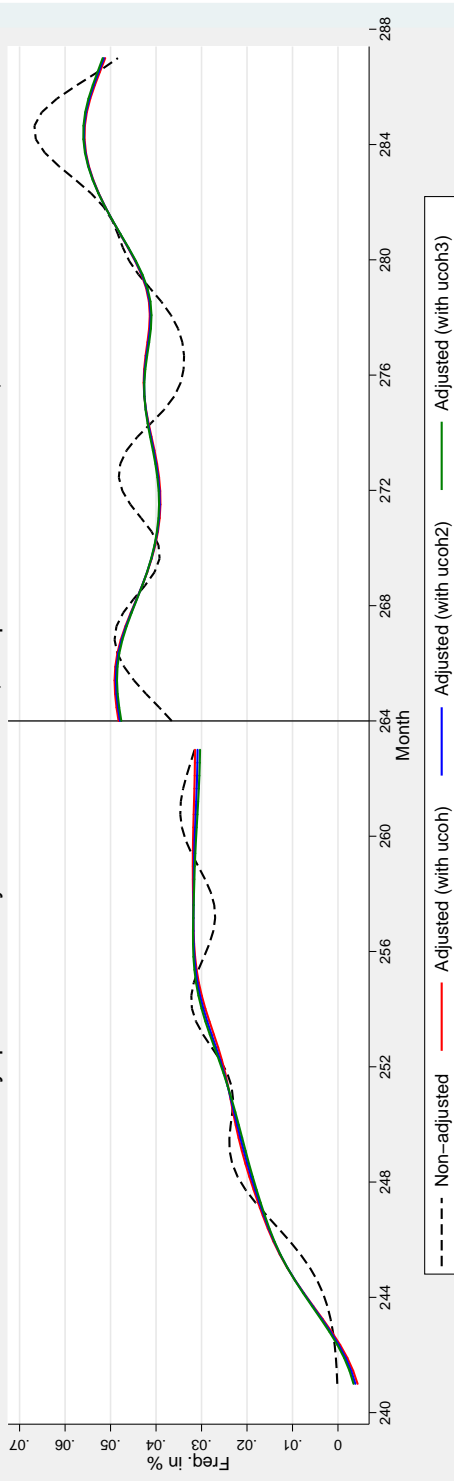
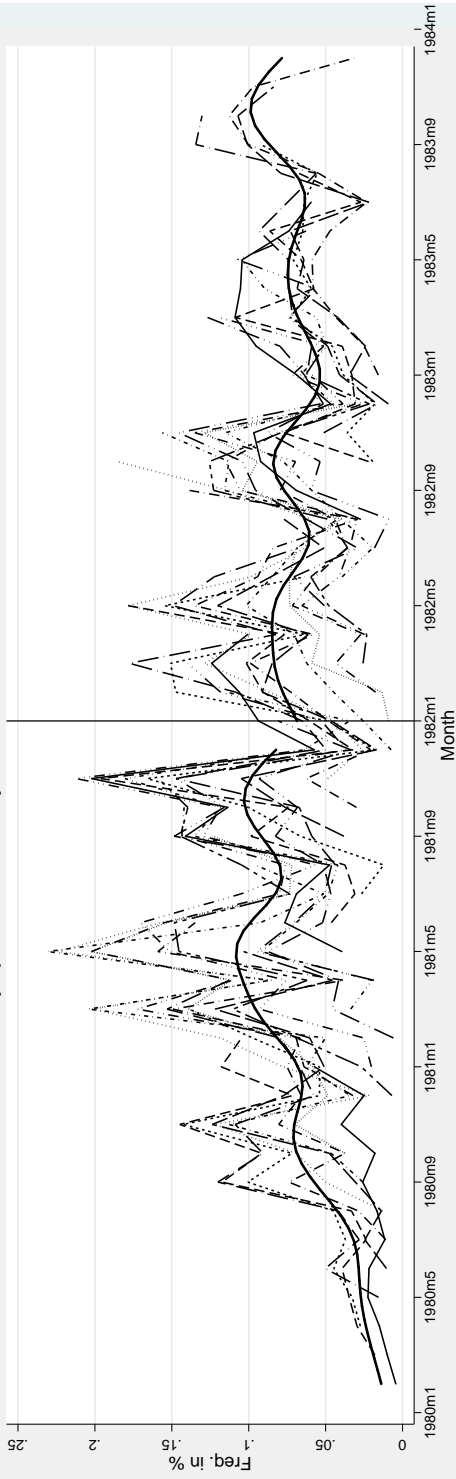


Figure 2: Entry quotes in short-term training, reform 1982

Panel A: Entry quotes in STT by cohorts and time, raw data, reform 1982



Panel B: Entry quotes in STT by cohorts and time, nonparametric estimation, reform 1982

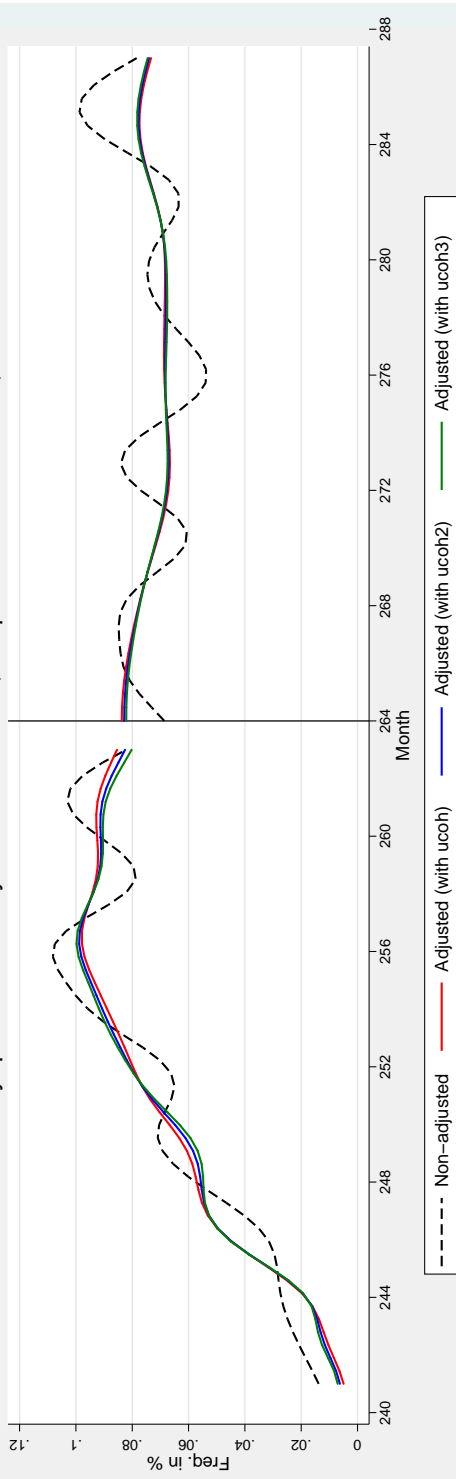
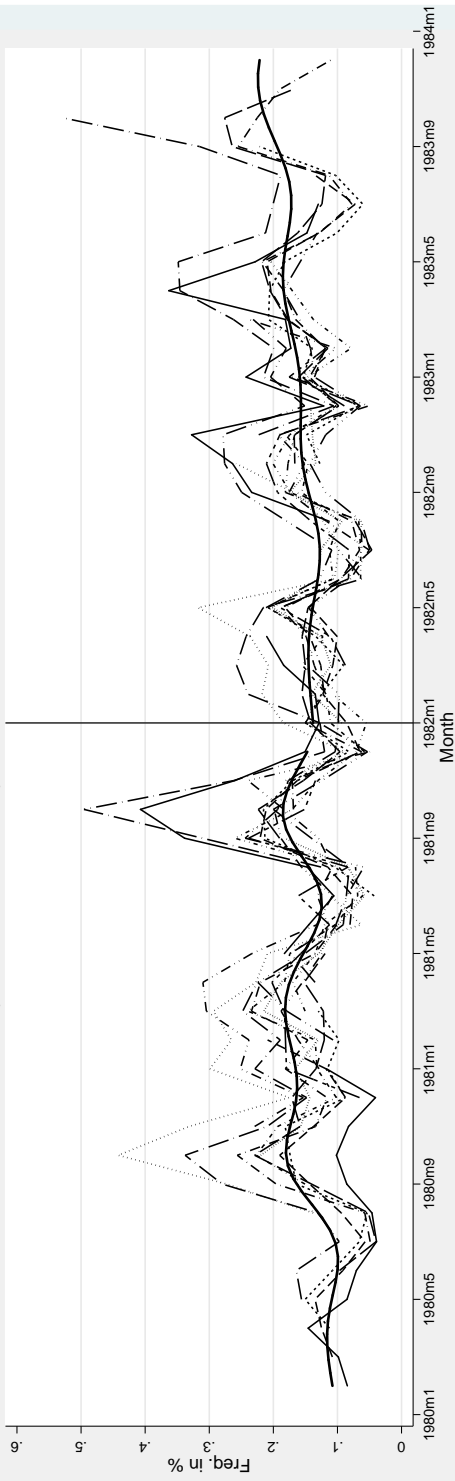


Figure 3: Entry quotes in further training, reform 1982

Panel A: Entry quotes in SPST by cohorts and time, raw data, reform 1982



Panel B: Entry quotes in SPST by cohorts and time, nonparametric estimation, reform 1982

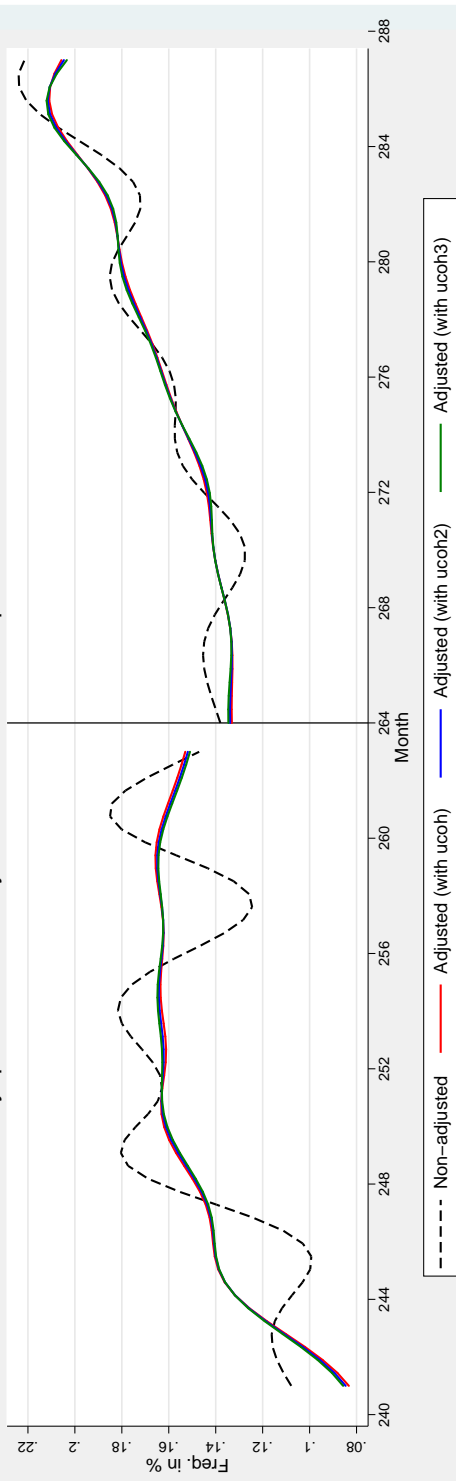
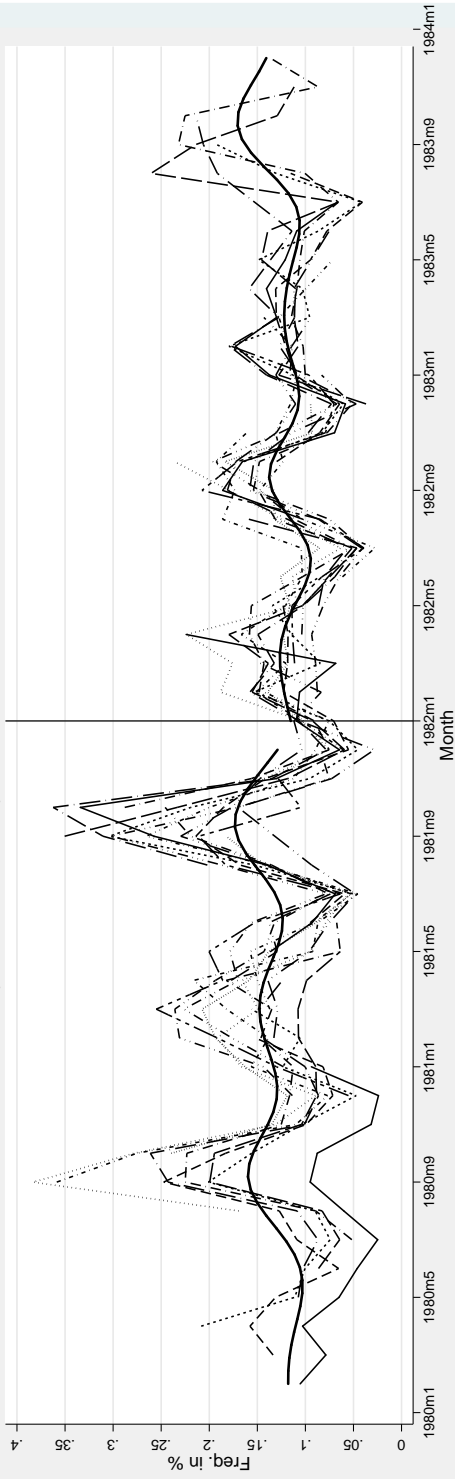


Figure 4: Entry quotes in retraining, reform 1982

Panel A: Entry quotes in RT by cohorts and time, raw data, reform 1982



Panel B: Entry quotes in RT by cohorts and time, nonparametric estimation, reform 1982

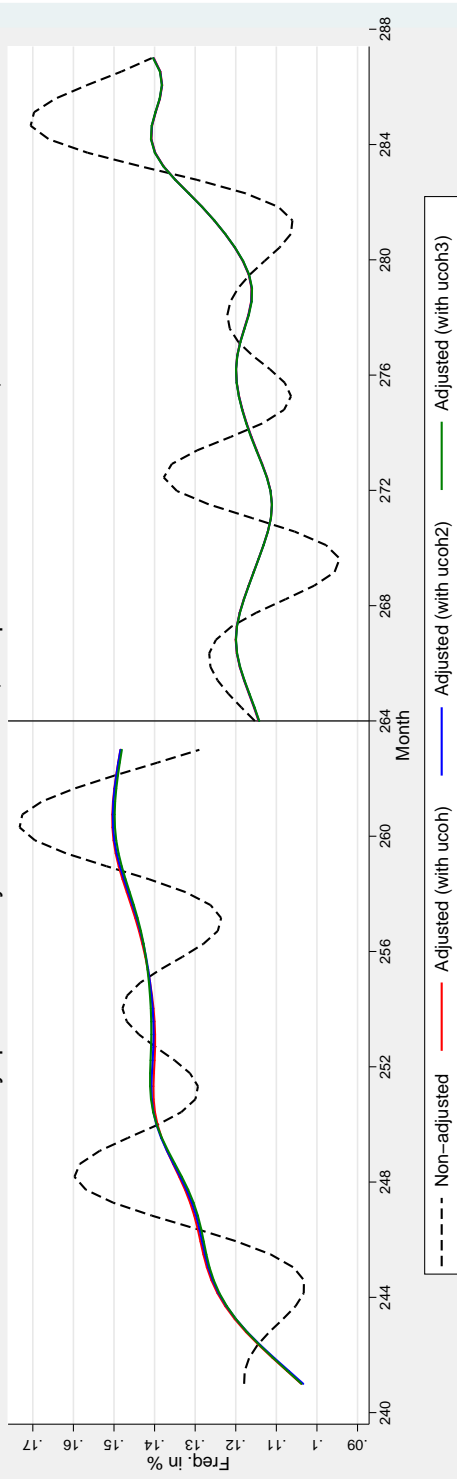
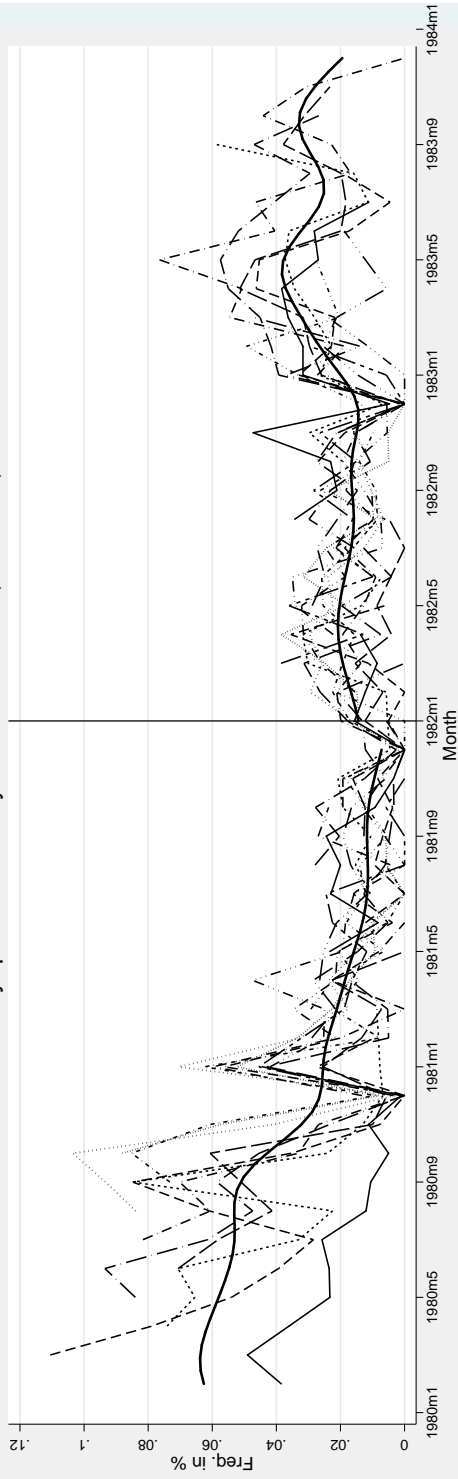


Figure 5: Entry quotes in wage subsidies, reform 1982

Panel A: Entry quotes in WS by cohorts and time, raw data, reform 1982



Panel B: Entry quotes in WS by cohorts and time, nonparametric estimation, reform 1982

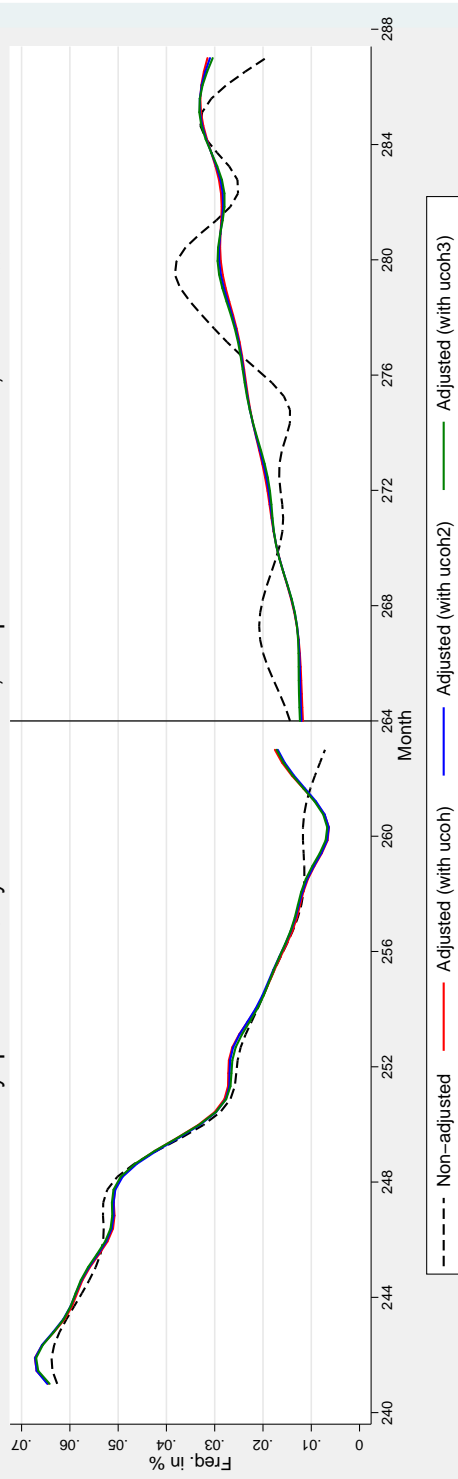
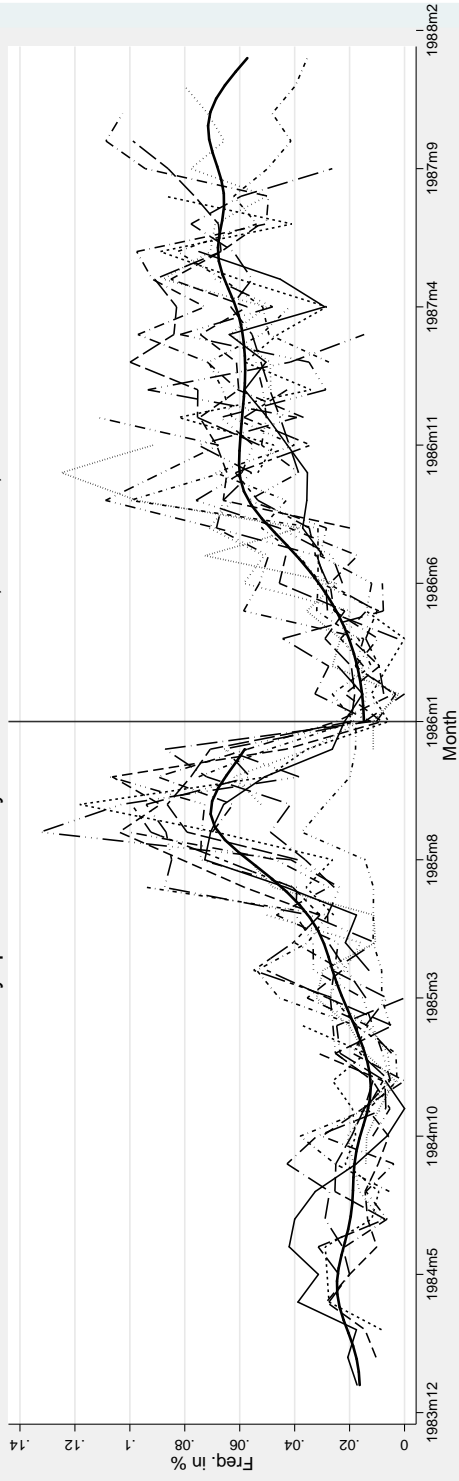




Figure 6: Entry quotes in practising firms, reform 1986

Panel A: Entry quotes in PF by cohorts and time, raw data, reform 1986



Panel B: Entry quotes in PF by cohorts and time, nonparametric estimation, reform 1986

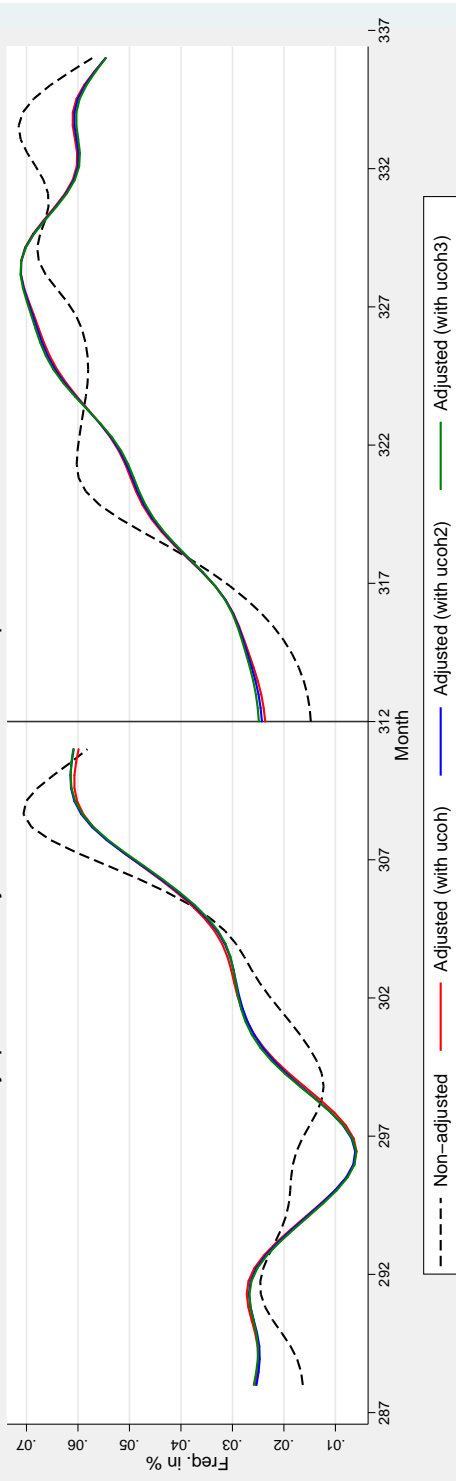
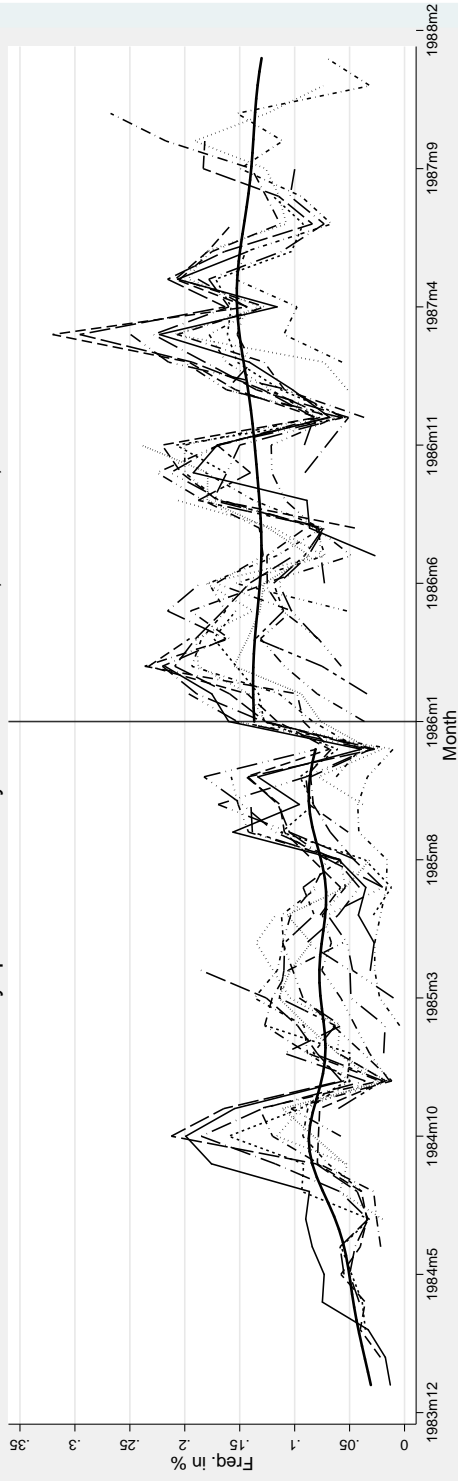


Figure 7: Entry quotes in short-term training, reform 1986

Panel A: Entry quotes in STT by cohorts and time, raw data, reform 1986



Panel B: Entry quotes in STT by cohorts and time, nonparametric estimation, reform 1986

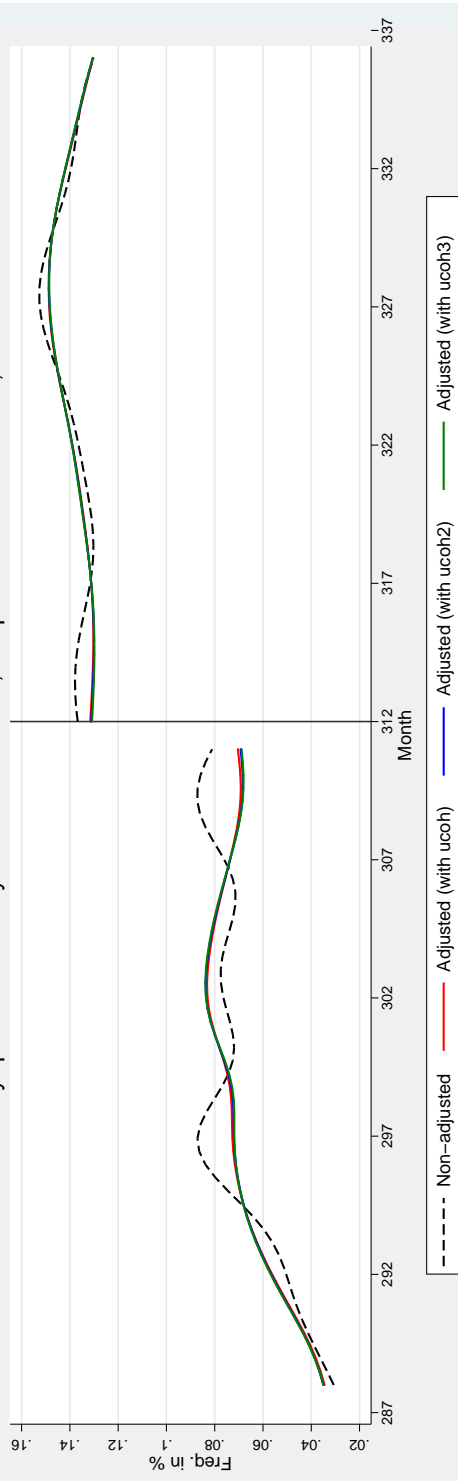
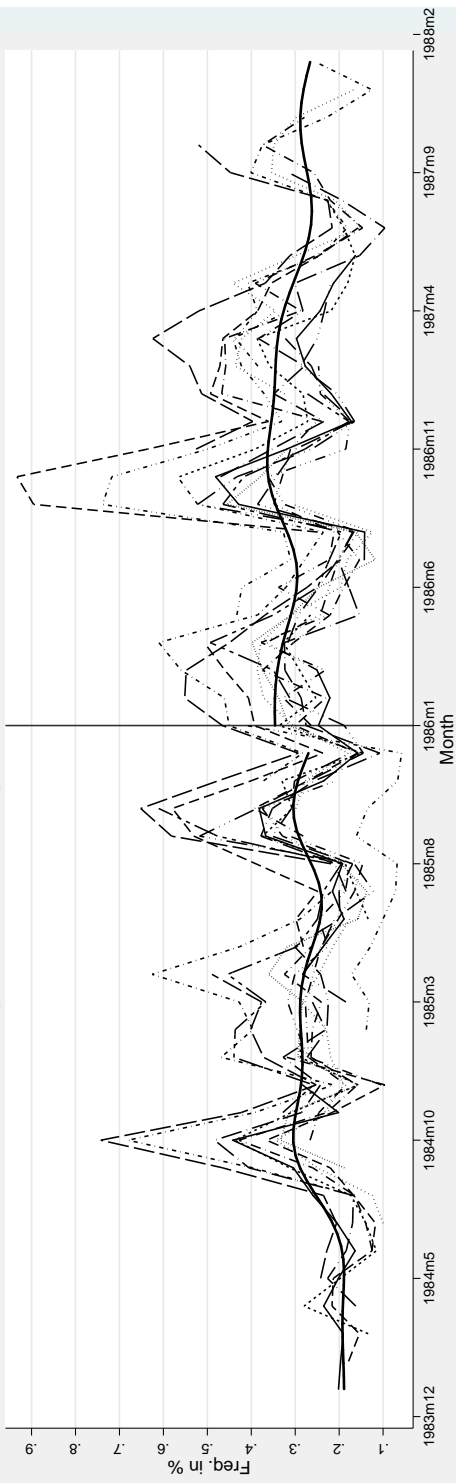


Figure 8: Entry quotes in further training, reform 1986

Panel A: Entry quotes in SPST by cohorts and time, raw data, reform 1986



Panel B: Entry quotes in SPST by cohorts and time, nonparametric estimation, reform 1986

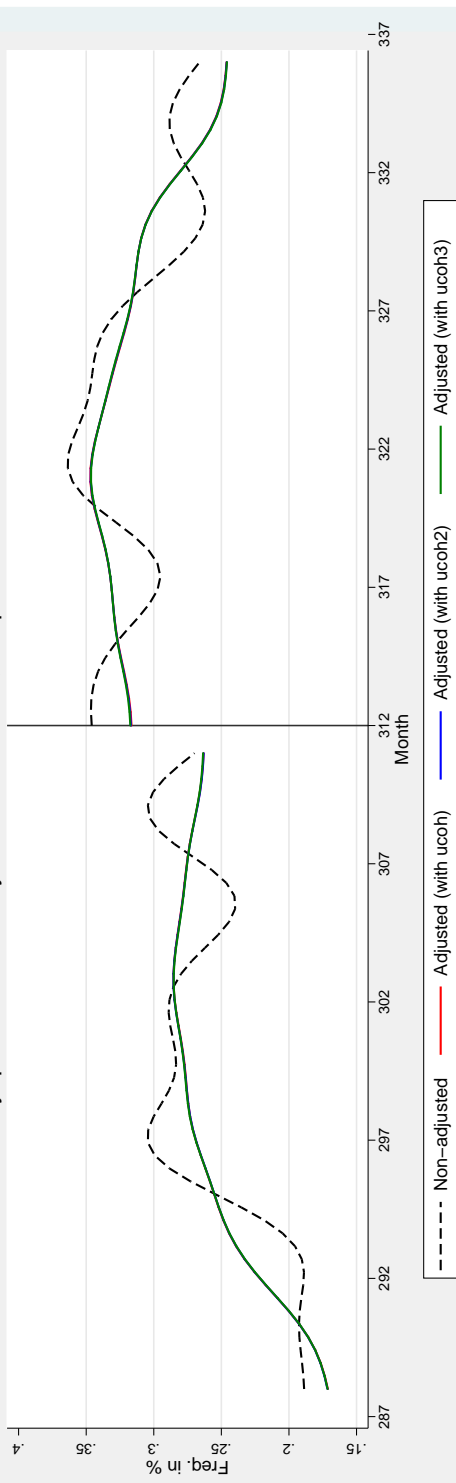
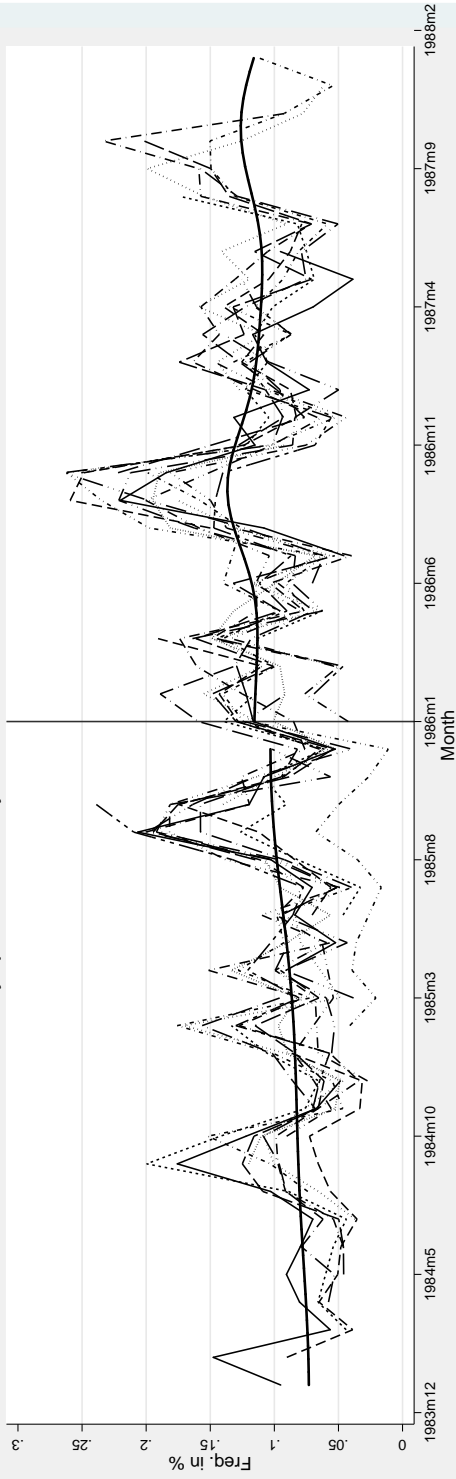


Figure 9: Entry quotes in retraining, reform 1986

Panel A: Entry quotes in RT by cohorts and time, raw data, reform 1986



Panel B: Entry quotes in RT by cohorts and time, nonparametric estimation, reform 1986

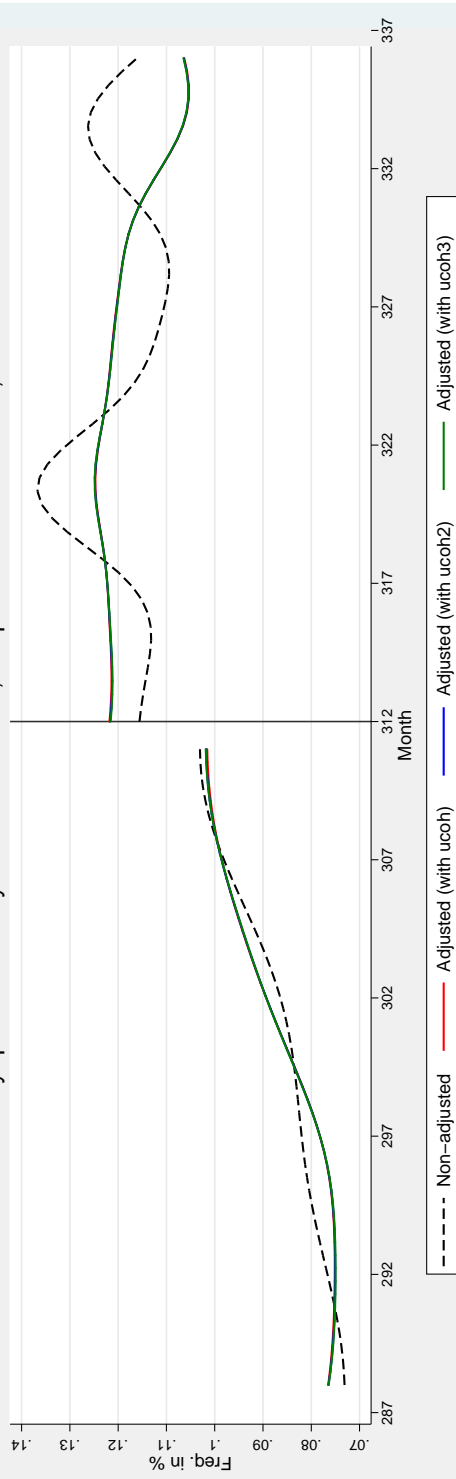
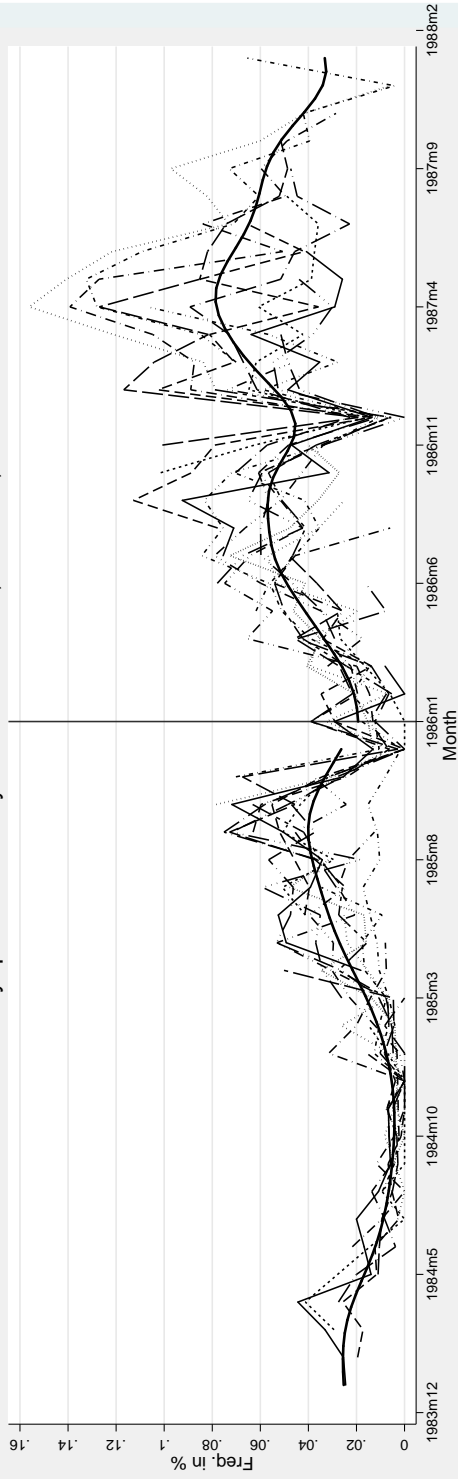


Figure 10: Entry quotes in wage subsidies, reform 1986

Panel A: Entry quotes in WS by cohorts and time, raw data, reform 1986



Panel B: Entry quotes in WS by cohorts and time, nonparametric estimation, reform 1986

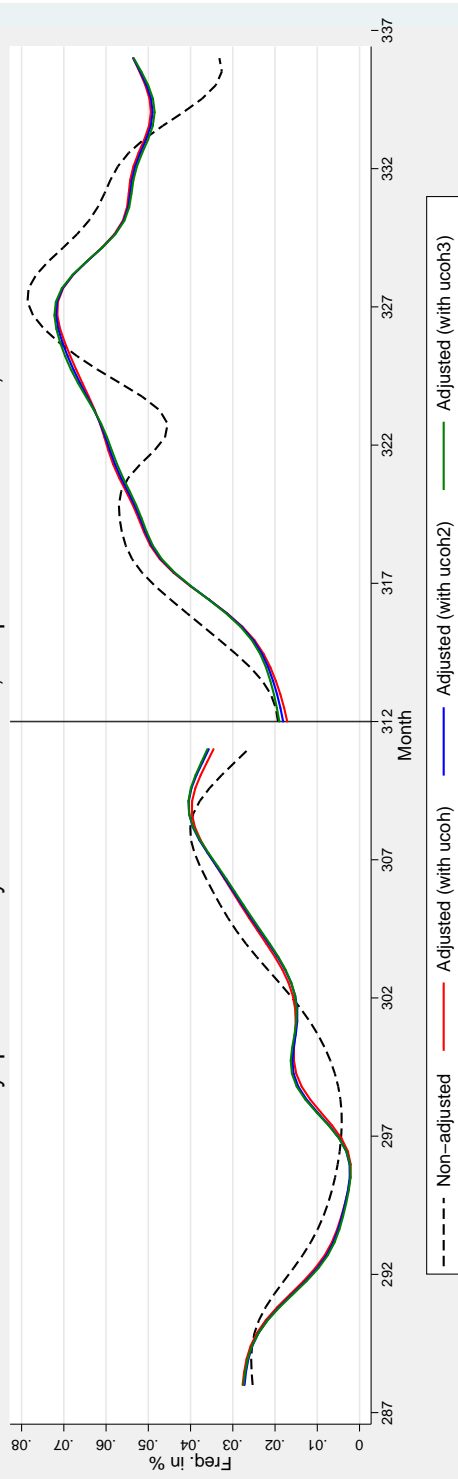


Table 2: List of variables

Variable	Description
<b><u>Outcomes</u></b>	
$D^P$	equal to one if treatment into $P$ has started. $P = \{PF, STT, SPST, RT, WS\}$ , where $PF$ = Practising firms, $STT$ = Short-term training, $SPST$ = Further training, $RT$ = Retraining, $WS$ = Wage subsidies
<b><u>Time specific variables and unemployment duration</u></b>	
$R$	equal to one for the reform year and is zero for one before the reform
$Z$	equal to one for months above the reform threshold and is zero for months below the threshold
$CM_t$	calendar month dummies
$m$	elapsed unemployment duration, $m = 1, \dots, 12$
<b><u>Personal characteristics</u></b>	
Age	age in years at start of unemployment; age dummies for 25–29 years (a2529), 30–34 years (a3034), 35–39 years (a3539), 40–44 years (a4044), 45–50 years (a4550)
Education	education dummies: no vocational training degree (BIL1), vocational training degree (BIL2), abitur/no vocational training degree (BIL3), uni/college degree (BIL4), education unknown (BIL5)
Nationality	equal to one if foreigners (foreign)
Children	equal to one if at least one child in household (kids)
Marital status	equal to one if married (married)
<b><u>Previous employment</u></b>	
Previous employment	employed in month $M$ ( $M=6, 12, 24$ ) before unemployment starts (preexM) number of months employed in the last 6 months before unemployment starts (preex6cum) number of months employed in the last 12 months before unemployment starts (preex12cum) number of months employed in the last 24 months before unemployment starts (preex24cum)
Employment status	dummies for apprentice (BER1), blue collar worker (BER2), white collar worker (BER3), worker at home/missing (BER4), part-time worker (BER5)
Firm size (employment)	dummies for < 10 employers (groesse1), $\geq 10$ and < 20 employers (groesse2), $\geq 20$ and < 50 employers (groesse3), $\geq 50$ and < 200 employers (groesse4), $\geq 200$ and < 500 employers (groesse5), $\geq 500$ employers (groesse6), missing (groesse7)
Industry	dummies for agriculture (WZW1), basic materials (WZW2), metal, vehicles, and electronics (WZW3), light industry (WZW4), construction (WZW5), production oriented services, trade, and banking (WZW6) consumer oriented, organizational and social services, and missing (WZW7)
Occupation	dummies for farmer and fisher (beruf1), miners (beruf2), manufacturing occupations (beruf3), technicians (beruf4), service occupation (beruf5), others and missing (beruf6)
Wage	log of daily earnings (logentg)
<b><u>Former treatment participation</u></b>	
Former participation	participation in any ALMP program reported in our data in year(s) $Y$ ( $Y=1,2$ ) before unemployment starts (pretxY)
<b><u>Regional characteristics</u></b>	
Regions	dummies for Niedersachsen (LAND7), Nordrhein–Westfalen (LAND8), Hessen (LAND9), Rheinland–Pfalz (LAND10), Baden–Württemberg (LAND11), Bayern (LAND12)

Notes: Name of variable in parentheses.

Table 3: Descriptive statistics, reform 1982, males

Variable	Reform year ( $R = 1$ )				One year before ( $R = 0$ )				Reform year ( $R = 1$ )				One year before ( $R = 0$ )				
	Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		
	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	
ALTER	38,005	(0,023)	37,843	(0,026)	37,988	(0,025)	38,359	(0,028)	beruf2	0,003	(0,000)	0,004	(0,000)	0,005	(0,000)	0,002	(0,000)
a2529	0,236	(0,001)	0,240	(0,001)	0,230	(0,001)	0,212	(0,001)	beruf3	0,482	(0,001)	0,437	(0,001)	0,453	(0,001)	0,404	(0,002)
a3034	0,186	(0,001)	0,189	(0,001)	0,188	(0,001)	0,186	(0,001)	beruf4	0,046	(0,001)	0,060	(0,001)	0,055	(0,001)	0,087	(0,001)
a3539	0,143	(0,001)	0,149	(0,001)	0,154	(0,001)	0,160	(0,001)	beruf5	0,382	(0,001)	0,419	(0,001)	0,398	(0,001)	0,436	(0,002)
a4044	0,158	(0,001)	0,153	(0,001)	0,155	(0,001)	0,161	(0,001)	beruf6	0,051	(0,001)	0,043	(0,001)	0,047	(0,001)	0,032	(0,001)
a4550	0,154	(0,001)	0,149	(0,001)	0,153	(0,001)	0,157	(0,001)	WZW1	0,017	(0,000)	0,012	(0,000)	0,017	(0,000)	0,014	(0,000)
BIL1	0,226	(0,001)	0,227	(0,001)	0,235	(0,001)	0,206	(0,001)	WZW2	0,114	(0,001)	0,135	(0,001)	0,137	(0,001)	0,132	(0,001)
BIL2	0,663	(0,001)	0,641	(0,001)	0,640	(0,001)	0,653	(0,001)	WZW3	0,147	(0,001)	0,164	(0,001)	0,159	(0,001)	0,173	(0,001)
BIL3	0,011	(0,000)	0,012	(0,000)	0,012	(0,000)	0,014	(0,000)	WZW4	0,084	(0,001)	0,085	(0,001)	0,079	(0,001)	0,084	(0,001)
BIL4	0,075	(0,001)	0,091	(0,001)	0,084	(0,001)	0,101	(0,001)	WZW5	0,218	(0,001)	0,157	(0,001)	0,180	(0,001)	0,133	(0,001)
BIL5	0,027	(0,000)	0,028	(0,000)	0,029	(0,000)	0,026	(0,001)	WZW6	0,250	(0,001)	0,266	(0,001)	0,255	(0,001)	0,267	(0,001)
married	0,337	(0,001)	0,240	(0,001)	0,257	(0,001)	0,164	(0,001)	WZW7	0,170	(0,001)	0,180	(0,001)	0,173	(0,001)	0,199	(0,001)
kids	0,000	(0,000)	0,000	(0,000)	0,000	(0,000)	0,000	(0,000)	LAND2	0,042	(0,001)	0,043	(0,001)	0,042	(0,001)	0,040	(0,001)
foreign	0,196	(0,001)	0,207	(0,001)	0,201	(0,001)	0,174	(0,001)	LAND6	0,088	(0,001)	0,083	(0,001)	0,079	(0,001)	0,078	(0,001)
BER1	0,013	(0,000)	0,014	(0,000)	0,013	(0,000)	0,014	(0,000)	LAND7	0,132	(0,001)	0,121	(0,001)	0,121	(0,001)	0,109	(0,001)
BER2	0,743	(0,001)	0,690	(0,001)	0,713	(0,001)	0,632	(0,001)	LAND8	0,273	(0,001)	0,306	(0,001)	0,293	(0,001)	0,320	(0,001)
BER3	0,222	(0,001)	0,268	(0,001)	0,245	(0,001)	0,326	(0,001)	LAND9	0,083	(0,001)	0,094	(0,001)	0,093	(0,001)	0,093	(0,001)
BER4	0,001	(0,000)	0,001	(0,000)	0,001	(0,000)	0,001	(0,000)	LAND10	0,067	(0,001)	0,061	(0,001)	0,064	(0,001)	0,062	(0,001)
BER5	0,021	(0,000)	0,027	(0,000)	0,028	(0,000)	0,027	(0,001)	LAND11	0,130	(0,001)	0,145	(0,001)	0,135	(0,001)	0,153	(0,001)
legentg	3,538	(0,003)	3,617	(0,003)	3,598	(0,003)	3,757	(0,003)	LAND12	0,187	(0,001)	0,146	(0,001)	0,172	(0,001)	0,144	(0,001)
groesse1	0,215	(0,001)	0,199	(0,001)	0,204	(0,001)	0,180	(0,001)	preex6	0,863	(0,001)	0,853	(0,001)	0,863	(0,001)	0,871	(0,001)
groesse2	0,120	(0,001)	0,103	(0,001)	0,112	(0,001)	0,097	(0,001)	preex12	0,750	(0,001)	0,770	(0,001)	0,745	(0,001)	0,791	(0,001)
groesse3	0,159	(0,001)	0,142	(0,001)	0,145	(0,001)	0,134	(0,001)	preex24	0,714	(0,001)	0,700	(0,001)	0,674	(0,001)	0,728	(0,001)
groesse4	0,206	(0,001)	0,202	(0,001)	0,199	(0,001)	0,201	(0,001)	preex6cum	5,690	(0,002)	5,667	(0,002)	5,689	(0,002)	5,703	(0,002)
groesse5	0,102	(0,001)	0,110	(0,001)	0,105	(0,001)	0,116	(0,001)	preex12cum	10,331	(0,007)	10,398	(0,007)	10,346	(0,007)	10,591	(0,008)
groesse6	0,171	(0,001)	0,220	(0,001)	0,210	(0,001)	0,249	(0,001)	preex24cum	19,289	(0,016)	19,146	(0,018)	19,002	(0,018)	19,587	(0,020)
groesse7	0,026	(0,000)	0,026	(0,000)	0,025	(0,000)	0,023	(0,000)	pretx1	0,012	(0,000)	0,010	(0,000)	0,006	(0,000)	0,002	(0,000)
beruf1	0,037	(0,000)	0,038	(0,001)	0,042	(0,001)	0,039	(0,001)	pretx2	0,013	(0,000)	0,005	(0,000)	0,001	(0,000)	0,000	(0,000)

Notes: Number of observations: 488361 for  $R = 1, Z = 1$ ; 376566 for  $R = 1, Z = 0$ ; 380225 for  $R = 0, Z = 1$ ; 273059 for  $R = 0, Z = 0$

Table 4: Descriptive statistics, reform 1982, females

Variable	Reform year ( $R = 1$ )				One year before ( $R = 0$ )				Reform year ( $R = 1$ )				One year before ( $R = 0$ )				
	Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		
	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	
ALTER	35,712	(0,026)	35,496	(0,026)	35,740	(0,027)	36,059	(0,029)	beruf2	0,000	(0,000)	0,000	(0,000)	0,000	(0,000)	0,000	(0,000)
a2529	0,338	(0,001)	0,347	(0,001)	0,341	(0,001)	0,319	(0,001)	beruf3	0,238	(0,001)	0,242	(0,001)	0,247	(0,001)	0,218	(0,001)
a3034	0,208	(0,001)	0,210	(0,001)	0,205	(0,001)	0,205	(0,001)	beruf4	0,018	(0,000)	0,016	(0,000)	0,016	(0,000)	0,019	(0,000)
a3539	0,125	(0,001)	0,125	(0,001)	0,126	(0,001)	0,137	(0,001)	beruf5	0,733	(0,001)	0,733	(0,001)	0,725	(0,001)	0,755	(0,001)
a4044	0,127	(0,001)	0,122	(0,001)	0,120	(0,001)	0,128	(0,001)	beruf6	0,002	(0,000)	0,001	(0,000)	0,002	(0,000)	0,002	(0,000)
a4550	0,113	(0,001)	0,106	(0,001)	0,111	(0,001)	0,113	(0,001)	WZW1	0,007	(0,000)	0,005	(0,000)	0,006	(0,000)	0,004	(0,000)
BIL1	0,314	(0,001)	0,314	(0,001)	0,330	(0,001)	0,312	(0,001)	WZW2	0,055	(0,001)	0,057	(0,001)	0,057	(0,001)	0,055	(0,001)
BIL2	0,588	(0,001)	0,584	(0,001)	0,572	(0,001)	0,598	(0,002)	WZW3	0,116	(0,001)	0,118	(0,001)	0,118	(0,001)	0,114	(0,001)
BIL3	0,007	(0,000)	0,008	(0,000)	0,008	(0,000)	0,008	(0,000)	WZW4	0,137	(0,001)	0,139	(0,001)	0,140	(0,001)	0,128	(0,001)
BIL4	0,063	(0,001)	0,066	(0,001)	0,062	(0,001)	0,054	(0,001)	WZW5	0,018	(0,000)	0,015	(0,000)	0,015	(0,000)	0,016	(0,000)
BIL5	0,028	(0,000)	0,028	(0,000)	0,028	(0,001)	0,028	(0,001)	WZW6	0,305	(0,001)	0,303	(0,001)	0,302	(0,001)	0,323	(0,001)
married	0,327	(0,001)	0,297	(0,001)	0,279	(0,001)	0,231	(0,001)	WZW7	0,363	(0,001)	0,364	(0,001)	0,363	(0,001)	0,359	(0,002)
kids	0,000	(0,000)	0,000	(0,000)	0,000	(0,000)	0,000	(0,000)	LAND2	0,047	(0,001)	0,046	(0,001)	0,045	(0,001)	0,045	(0,001)
foreign	0,131	(0,001)	0,135	(0,001)	0,136	(0,001)	0,120	(0,001)	LAND6	0,081	(0,001)	0,076	(0,001)	0,077	(0,001)	0,082	(0,001)
BER1	0,010	(0,000)	0,010	(0,000)	0,009	(0,000)	0,011	(0,000)	LAND7	0,119	(0,001)	0,116	(0,001)	0,116	(0,001)	0,116	(0,001)
BER2	0,326	(0,001)	0,322	(0,001)	0,331	(0,001)	0,295	(0,001)	LAND8	0,260	(0,001)	0,274	(0,001)	0,275	(0,001)	0,273	(0,001)
BER3	0,403	(0,001)	0,405	(0,001)	0,403	(0,001)	0,435	(0,002)	LAND9	0,091	(0,001)	0,092	(0,001)	0,091	(0,001)	0,093	(0,001)
BER4	0,013	(0,000)	0,014	(0,000)	0,014	(0,000)	0,012	(0,000)	LAND10	0,062	(0,001)	0,062	(0,001)	0,062	(0,001)	0,065	(0,001)
BER5	0,248	(0,001)	0,250	(0,001)	0,243	(0,001)	0,247	(0,001)	LAND11	0,161	(0,001)	0,164	(0,001)	0,160	(0,001)	0,160	(0,001)
legentg	2,629	(0,004)	2,679	(0,005)	2,662	(0,005)	2,784	(0,005)	LAND12	0,178	(0,001)	0,170	(0,001)	0,174	(0,001)	0,166	(0,001)
groesse1	0,235	(0,001)	0,222	(0,001)	0,227	(0,001)	0,227	(0,001)	preex6	0,871	(0,001)	0,874	(0,001)	0,869	(0,001)	0,881	(0,001)
groesse2	0,095	(0,001)	0,093	(0,001)	0,092	(0,001)	0,088	(0,001)	preex12	0,761	(0,001)	0,770	(0,001)	0,761	(0,001)	0,791	(0,001)
groesse3	0,129	(0,001)	0,127	(0,001)	0,128	(0,001)	0,120	(0,001)	preex24	0,683	(0,001)	0,685	(0,001)	0,675	(0,001)	0,706	(0,001)
groesse4	0,204	(0,001)	0,207	(0,001)	0,203	(0,001)	0,200	(0,001)	preex6cum	5,714	(0,002)	5,721	(0,002)	5,708	(0,002)	5,733	(0,002)
groesse5	0,124	(0,001)	0,129	(0,001)	0,133	(0,001)	0,134	(0,001)	preex12cum	10,455	(0,008)	10,513	(0,008)	10,454	(0,008)	10,633	(0,008)
groesse6	0,186	(0,001)	0,196	(0,001)	0,195	(0,001)	0,206	(0,001)	preex24cum	19,072	(0,019)	19,174	(0,019)	19,063	(0,019)	19,497	(0,021)
groesse7	0,027	(0,000)	0,026	(0,000)	0,022	(0,000)	0,025	(0,000)	pretx1	0,007	(0,000)	0,005	(0,000)	0,003	(0,000)	0,001	(0,000)
beruf1	0,009	(0,000)	0,007	(0,000)	0,010	(0,000)	0,007	(0,000)	pretx2	0,008	(0,000)	0,003	(0,000)	0,000	(0,000)	0,000	(0,000)

Notes: Number of observations: 296979 for  $R = 1, Z = 1$ ; 282259 for  $R = 1, Z = 0$ ; 270247 for  $R = 0, Z = 1$ ; 236042 for  $R = 0, Z = 0$



Table 5: Descriptive statistics, reform 1986, males

Variable	Reform year ( $R = 1$ )				One year before ( $R = 0$ )				Reform year ( $R = 1$ )				One year before ( $R = 0$ )				
	Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		
	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	
ALTER	38,566	(0,026)	38,763	(0,024)	39,000	(0,022)	38,798	(0,026)	beruf2	0,003	(0,000)	0,002	(0,000)	0,003	(0,000)	0,002	(0,000)
a2529	0,232	(0,001)	0,212	(0,001)	0,206	(0,001)	0,212	(0,001)	beruf3	0,474	(0,001)	0,383	(0,001)	0,457	(0,001)	0,437	(0,001)
a3034	0,171	(0,001)	0,177	(0,001)	0,169	(0,001)	0,174	(0,001)	beruf4	0,048	(0,001)	0,087	(0,001)	0,068	(0,001)	0,062	(0,001)
a3539	0,149	(0,001)	0,153	(0,001)	0,149	(0,001)	0,146	(0,001)	beruf5	0,383	(0,001)	0,460	(0,001)	0,391	(0,001)	0,420	(0,001)
a4044	0,126	(0,001)	0,140	(0,001)	0,150	(0,001)	0,155	(0,001)	beruf6	0,041	(0,001)	0,029	(0,000)	0,039	(0,000)	0,035	(0,000)
a4550	0,181	(0,001)	0,184	(0,001)	0,190	(0,001)	0,175	(0,001)	WZW1	0,021	(0,000)	0,014	(0,000)	0,016	(0,000)	0,015	(0,000)
BIL1	0,173	(0,001)	0,153	(0,001)	0,177	(0,001)	0,201	(0,001)	WZW2	0,107	(0,001)	0,112	(0,001)	0,122	(0,001)	0,129	(0,001)
BIL2	0,720	(0,001)	0,713	(0,001)	0,710	(0,001)	0,673	(0,001)	WZW3	0,128	(0,001)	0,146	(0,001)	0,139	(0,001)	0,158	(0,001)
BIL3	0,011	(0,000)	0,011	(0,000)	0,009	(0,000)	0,010	(0,000)	WZW4	0,077	(0,001)	0,084	(0,001)	0,076	(0,001)	0,077	(0,001)
BIL4	0,078	(0,001)	0,103	(0,001)	0,081	(0,001)	0,092	(0,001)	WZW5	0,211	(0,001)	0,142	(0,001)	0,218	(0,001)	0,153	(0,001)
BIL5	0,018	(0,000)	0,020	(0,000)	0,023	(0,000)	0,024	(0,000)	WZW6	0,263	(0,001)	0,310	(0,001)	0,265	(0,001)	0,276	(0,001)
married	0,363	(0,001)	0,276	(0,001)	0,342	(0,001)	0,306	(0,001)	WZW7	0,192	(0,001)	0,191	(0,001)	0,165	(0,001)	0,192	(0,001)
kids	0,212	(0,001)	0,135	(0,001)	0,186	(0,001)	0,141	(0,001)	LAND2	0,045	(0,001)	0,043	(0,001)	0,040	(0,000)	0,044	(0,001)
foreign	0,139	(0,001)	0,140	(0,001)	0,167	(0,001)	0,199	(0,001)	LAND6	0,085	(0,001)	0,089	(0,001)	0,084	(0,001)	0,083	(0,001)
BER1	0,011	(0,000)	0,010	(0,000)	0,009	(0,000)	0,010	(0,000)	LAND7	0,128	(0,001)	0,123	(0,001)	0,130	(0,001)	0,125	(0,001)
BER2	0,731	(0,001)	0,587	(0,001)	0,678	(0,001)	0,677	(0,001)	LAND8	0,269	(0,001)	0,287	(0,001)	0,271	(0,001)	0,297	(0,001)
BER3	0,229	(0,001)	0,374	(0,001)	0,289	(0,001)	0,285	(0,001)	LAND9	0,081	(0,001)	0,087	(0,001)	0,084	(0,001)	0,088	(0,001)
BER4	0,001	(0,000)	0,001	(0,000)	0,001	(0,000)	0,001	(0,000)	LAND10	0,073	(0,001)	0,066	(0,001)	0,070	(0,001)	0,071	(0,001)
BER5	0,028	(0,000)	0,028	(0,000)	0,023	(0,000)	0,027	(0,000)	LAND11	0,122	(0,001)	0,139	(0,001)	0,128	(0,001)	0,136	(0,001)
legentg	3,498	(0,003)	3,691	(0,003)	3,626	(0,002)	3,603	(0,003)	LAND12	0,197	(0,001)	0,167	(0,001)	0,193	(0,001)	0,155	(0,001)
groesse1	0,261	(0,001)	0,238	(0,001)	0,237	(0,001)	0,224	(0,001)	preex6	0,842	(0,001)	0,867	(0,001)	0,875	(0,001)	0,855	(0,001)
groesse2	0,126	(0,001)	0,120	(0,001)	0,127	(0,001)	0,108	(0,001)	preex12	0,686	(0,001)	0,783	(0,001)	0,744	(0,001)	0,769	(0,001)
groesse3	0,151	(0,001)	0,146	(0,001)	0,154	(0,001)	0,135	(0,001)	preex24	0,648	(0,001)	0,722	(0,001)	0,702	(0,001)	0,746	(0,001)
groesse4	0,178	(0,001)	0,188	(0,001)	0,186	(0,001)	0,177	(0,001)	preex6cum	5,648	(0,002)	5,699	(0,002)	5,721	(0,002)	5,674	(0,002)
groesse5	0,085	(0,001)	0,093	(0,001)	0,090	(0,001)	0,103	(0,001)	preex12cum	9,958	(0,007)	10,500	(0,007)	10,385	(0,006)	10,402	(0,007)
groesse6	0,164	(0,001)	0,184	(0,001)	0,176	(0,001)	0,221	(0,001)	preex24cum	18,370	(0,017)	19,456	(0,017)	19,372	(0,015)	19,402	(0,017)
groesse7	0,034	(0,000)	0,032	(0,000)	0,029	(0,000)	0,033	(0,000)	pretx1	0,016	(0,000)	0,015	(0,000)	0,015	(0,000)	0,015	(0,000)
beruf1	0,051	(0,001)	0,039	(0,001)	0,042	(0,000)	0,045	(0,001)	pretx2	0,027	(0,000)	0,027	(0,000)	0,025	(0,000)	0,026	(0,000)

Notes: Number of observations: 475119 for  $R = 1, Z = 1$ ; 477962 for  $R = 1, Z = 0$ ; 552732 for  $R = 0, Z = 1$ ; 435238 for  $R = 0, Z = 0$

Table 6: Descriptive statistics, reform 1986, females

Variable	Reform year ( $R = 1$ )				One year before ( $R = 0$ )				Reform year ( $R = 1$ )				One year before ( $R = 0$ )				
	Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		Jan.-June ( $Z = 1$ )		July-Dec. ( $Z = 0$ )		
	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	mean	(s.e.)	
ALTER	35,929	(0,028)	36,296	(0,025)	36,396	(0,025)	36,175	(0,027)	beruf2	0,000	(0,000)	0,000	(0,000)	0,000	(0,000)	0,000	(0,000)
a2529	0,334	(0,001)	0,311	(0,001)	0,307	(0,001)	0,320	(0,001)	beruf3	0,197	(0,001)	0,159	(0,001)	0,175	(0,001)	0,189	(0,001)
a3034	0,205	(0,001)	0,200	(0,001)	0,199	(0,001)	0,204	(0,001)	beruf4	0,018	(0,000)	0,019	(0,000)	0,019	(0,000)	0,019	(0,000)
a3539	0,128	(0,001)	0,135	(0,001)	0,134	(0,001)	0,125	(0,001)	beruf5	0,771	(0,001)	0,813	(0,001)	0,795	(0,001)	0,784	(0,001)
a4044	0,108	(0,001)	0,124	(0,001)	0,128	(0,001)	0,124	(0,001)	beruf6	0,002	(0,000)	0,001	(0,000)	0,001	(0,000)	0,001	(0,000)
a4550	0,132	(0,001)	0,140	(0,001)	0,139	(0,001)	0,134	(0,001)	WZW1	0,007	(0,000)	0,006	(0,000)	0,007	(0,000)	0,005	(0,000)
BIL1	0,246	(0,001)	0,217	(0,001)	0,241	(0,001)	0,253	(0,001)	WZW2	0,046	(0,001)	0,046	(0,001)	0,049	(0,001)	0,048	(0,001)
BIL2	0,662	(0,001)	0,695	(0,001)	0,672	(0,001)	0,658	(0,001)	WZW3	0,094	(0,001)	0,092	(0,001)	0,096	(0,001)	0,098	(0,001)
BIL3	0,010	(0,000)	0,009	(0,000)	0,008	(0,000)	0,008	(0,000)	WZW4	0,111	(0,001)	0,108	(0,001)	0,115	(0,001)	0,112	(0,001)
BIL4	0,063	(0,001)	0,058	(0,001)	0,054	(0,001)	0,056	(0,001)	WZW5	0,018	(0,000)	0,026	(0,000)	0,025	(0,000)	0,017	(0,000)
BIL5	0,020	(0,000)	0,022	(0,000)	0,025	(0,000)	0,026	(0,000)	WZW6	0,325	(0,001)	0,360	(0,001)	0,345	(0,001)	0,349	(0,001)
married	0,345	(0,001)	0,301	(0,001)	0,310	(0,001)	0,319	(0,001)	WZW7	0,399	(0,001)	0,363	(0,001)	0,362	(0,001)	0,370	(0,001)
kids	0,163	(0,001)	0,126	(0,001)	0,128	(0,001)	0,125	(0,001)	LAND2	0,046	(0,001)	0,044	(0,001)	0,044	(0,001)	0,046	(0,001)
foreign	0,089	(0,001)	0,082	(0,001)	0,099	(0,001)	0,109	(0,001)	LAND6	0,084	(0,001)	0,083	(0,001)	0,081	(0,001)	0,079	(0,001)
BER1	0,013	(0,000)	0,011	(0,000)	0,010	(0,000)	0,010	(0,000)	LAND7	0,119	(0,001)	0,121	(0,001)	0,122	(0,001)	0,121	(0,001)
BER2	0,294	(0,001)	0,237	(0,001)	0,265	(0,001)	0,276	(0,001)	LAND8	0,258	(0,001)	0,255	(0,001)	0,254	(0,001)	0,261	(0,001)
BER3	0,428	(0,001)	0,494	(0,001)	0,473	(0,001)	0,445	(0,001)	LAND9	0,090	(0,001)	0,091	(0,001)	0,092	(0,001)	0,097	(0,001)
BER4	0,009	(0,000)	0,007	(0,000)	0,008	(0,000)	0,008	(0,000)	LAND10	0,069	(0,001)	0,067	(0,001)	0,066	(0,001)	0,065	(0,001)
BER5	0,257	(0,001)	0,251	(0,001)	0,244	(0,001)	0,261	(0,001)	LAND11	0,153	(0,001)	0,150	(0,001)	0,152	(0,001)	0,154	(0,001)
legentg	2,710	(0,005)	2,846	(0,004)	2,793	(0,004)	2,745	(0,005)	LAND12	0,182	(0,001)	0,189	(0,001)	0,188	(0,001)	0,177	(0,001)
groesse1	0,275	(0,001)	0,312	(0,001)	0,304	(0,001)	0,272	(0,001)	preex6	0,870	(0,001)	0,889	(0,001)	0,890	(0,001)	0,886	(0,001)
groesse2	0,096	(0,001)	0,108	(0,001)	0,107	(0,001)	0,096	(0,001)	preex12	0,762	(0,001)	0,802	(0,001)	0,796	(0,001)	0,799	(0,001)
groesse3	0,123	(0,001)	0,122	(0,001)	0,122	(0,001)	0,120	(0,001)	preex24	0,695	(0,001)	0,740	(0,001)	0,740	(0,001)	0,745	(0,001)
groesse4	0,183	(0,001)	0,170	(0,001)	0,176	(0,001)	0,183	(0,001)	preex6cum	5,709	(0,002)	5,752	(0,002)	5,750	(0,002)	5,742	(0,002)
groesse5	0,119	(0,001)	0,106	(0,001)	0,106	(0,001)	0,119	(0,001)	preex12cum	10,445	(0,008)	10,704	(0,007)	10,680	(0,007)	10,677	(0,007)
groesse6	0,169	(0,001)	0,151	(0,001)	0,154	(0,001)	0,178	(0,001)	preex24cum	19,172	(0,020)	19,870	(0,017)	19,875	(0,017)	19,900	(0,018)
groesse7	0,035	(0,001)	0,033	(0,000)	0,031	(0,000)	0,033	(0,001)	pretx1	0,007	(0,000)	0,007	(0,000)	0,007	(0,000)	0,007	(0,000)
beruf1	0,012	(0,000)	0,007	(0,000)	0,009	(0,000)	0,008	(0,000)	pretx2	0,014	(0,000)	0,014	(0,000)	0,014	(0,000)	0,014	(0,000)

Notes: Number of observations: 320557 for  $R = 1, Z = 1$ ; 374959 for  $R = 1, Z = 0$ ; 359930 for  $R = 0, Z = 1$ ; 323139 for  $R = 0, Z = 0$

Table 7: Estimated impact of reform 1982 on treatment probability in PF for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
<b>Controls</b>												
<b>DiD (m = 1)</b> (standard error) Clusters	0.012 (0.008) 43796	0.012 (0.009) 43796	0.002 (0.007) 98738	0.003 (0.006) 98738	0.003 (0.006) 124761	0.003 (0.006) 124761	0.001 (0.006) 147993	0.002 (0.006) 147993	-0.002 (0.005) 176121	-0.000 (0.005) 176121	0.000 (0.005) 194544	0.002 (0.005) 194544
<b>DiD (m = 2)</b> (standard error) Clusters	-0.026 (0.015) 36381	-0.026 (0.015) 36381	-0.012 (0.011) 68083	-0.011 (0.011) 68083	-0.016 (0.009) 108753	-0.016 (0.009) 108753	-0.012 (0.008) 131547	-0.011 (0.008) 131547	-0.010 (0.007) 149351	-0.009 (0.007) 149351	-0.013 (0.007) 170539	-0.012 (0.007) 170539
<b>DiD (m = 3)</b> (standard error) Clusters	0.018 (0.019) 28352	0.021 (0.019) 28352	-0.007 (0.014) 54753	-0.005 (0.015) 54753	-0.001 (0.011) 81083	-0.001 (0.011) 81083	0.007 (0.009) 112836	0.010 (0.009) 112836	0.008 (0.008) 129607	0.010 (0.009) 129607	0.009 (0.008) 148141	0.011 (0.008) 148141
<b>DiD (m = 4)</b> (standard error) Clusters	-0.013 (0.025) 21182	-0.010 (0.026) 21182	0.017 (0.018) 46183	0.018 (0.018) 46183	0.005 (0.015) 66746	0.005 (0.015) 66746	0.002 (0.013) 85673	0.001 (0.013) 85673	-0.004 (0.010) 116526	-0.004 (0.010) 116526	-0.006 (0.010) 131280	-0.006 (0.010) 131280
<b>DiD (m = 5)</b> (standard error) Clusters	-0.002 (0.024) 19280	-0.002 (0.025) 19280	0.010 (0.019) 35598	0.011 (0.020) 35598	0.002 (0.016) 55253	0.002 (0.016) 55253	0.003 (0.013) 75691	0.003 (0.014) 75691	0.006 (0.012) 91856	0.007 (0.012) 91856	-0.003 (0.010) 117504	-0.002 (0.010) 117504
<b>DiD (m = 6)</b> (standard error) Clusters	0.006 (0.030) 15092	0.005 (0.031) 15092	0.013 (0.022) 29792	0.012 (0.022) 29792	-0.011 (0.018) 46868	-0.011 (0.018) 46868	-0.010 (0.016) 64319	-0.012 (0.016) 64319	-0.017 (0.014) 80038	-0.018 (0.014) 80038	-0.007 (0.011) 108588	-0.008 (0.011) 108588
<b>DiD (m = 7)</b> (standard error) Clusters	0.036 (0.027) 11355	0.035 (0.028) 11355	-0.015 (0.021) 27209	-0.018 (0.022) 27209	-0.007 (0.018) 40419	-0.007 (0.018) 40419	0.005 (0.016) 53812	0.003 (0.016) 53812	-0.000 (0.012) 83541	0.000 (0.012) 83541	0.001 (0.012) 96044	0.002 (0.012) 96044
<b>DiD (m = 8)</b> (standard error) Clusters	-0.010 (0.027) 12526	-0.006 (0.028) 12526	0.027 (0.019) 22734	0.029 (0.020) 22734	0.021 (0.017) 35194	0.021 (0.017) 35194	0.024 (0.013) 60659	0.023 (0.013) 60659	0.020 (0.012) 71411	0.018 (0.012) 71411	0.018 (0.011) 84738	0.017 (0.011) 84738
<b>DiD (m = 9)</b> (standard error) Clusters	-0.030 (0.032) 11367	-0.033 (0.033) 11367	-0.008 (0.022) 20831	-0.012 (0.022) 20831	-0.010 (0.014) 43021	-0.010 (0.014) 43021	-0.000 (0.014) 52979	-0.000 (0.014) 52979	-0.002 (0.013) 62956	-0.002 (0.013) 62956	0.001 (0.012) 73856	0.001 (0.012) 73856
<b>DiD (m = 10)</b> (standard error) Clusters	0.041 (0.021) 8726	0.041 (0.022) 8726	0.030 (0.018) 31617	0.027 (0.018) 31617	0.026 (0.015) 38954	0.026 (0.015) 38954	0.025 (0.014) 46501	0.023 (0.014) 46501	0.027* (0.012) 56705	0.026* (0.012) 56705	0.026* (0.011) 65917	0.023* (0.011) 65917
<b>DiD (m = 11)</b> (standard error) Clusters	0.007 (0.010) 20249	0.012 (0.010) 20249	0.018 (0.015) 26948	0.015 (0.015) 26948	0.024 (0.015) 35575	0.022 (0.015) 35575	0.027 (0.014) 43286	0.026 (0.014) 43286	0.034** (0.013) 50244	0.032* (0.013) 50244	0.031** (0.011) 59059	0.030** (0.011) 59059

Notes: The outcome variable is equal to 1 if a treatment into PF has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_F^D$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 8: Estimated impact of reform 1982 on treatment probability in STT for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error) Clusters	-0.010 (0.010) 43803	-0.011 (0.010) 43803	0.002 (0.009) 98752	0.002 (0.009) 98752	0.001 (0.008) 124797	0.002 (0.008) 124797	0.002 (0.007) 148032	0.003 (0.007) 148032	-0.001 (0.007) 176170	0.001 (0.007) 176170	-0.002 (0.006) 194603	-0.001 (0.006) 194603
DiD ( $m = 2$ ) (standard error) Clusters	-0.024 (0.015) 36380	-0.025 (0.015) 36380	-0.013 (0.012) 68095	-0.012 (0.012) 68095	-0.012 (0.011) 108812	-0.009 (0.011) 108812	-0.008 (0.010) 131611	-0.005 (0.010) 131611	-0.007 (0.009) 149422	-0.005 (0.009) 149422	-0.002 (0.008) 170634	0.001 (0.009) 170634
DiD ( $m = 3$ ) (standard error) Clusters	-0.013 (0.023) 28368	-0.009 (0.024) 28368	-0.012 (0.020) 54807	-0.007 (0.020) 54807	-0.026 (0.017) 81179	-0.023 (0.017) 81179	-0.024 (0.014) 112943	-0.022 (0.014) 112943	-0.027* (0.012) 129723	-0.025* (0.012) 129723	-0.034** (0.011) 148280	-0.032** (0.011) 148280
DiD ( $m = 4$ ) (standard error) Clusters	0.028 (0.026) 21185	0.023 (0.026) 21185	0.020 (0.023) 46226	0.021 (0.023) 46226	-0.013 (0.019) 66805	-0.012 (0.019) 66805	-0.016 (0.017) 85752	-0.017 (0.017) 85752	-0.012 (0.014) 116649	-0.012 (0.014) 116649	-0.013 (0.013) 131417	-0.013 (0.013) 131417
DiD ( $m = 5$ ) (standard error) Clusters	-0.005 (0.023) 19276	-0.006 (0.023) 19276	-0.022 (0.024) 35627	-0.025 (0.024) 35627	-0.036 (0.024) 55335	-0.038 (0.022) 55335	-0.029 (0.019) 75819	-0.028 (0.019) 75819	-0.030 (0.017) 91985	-0.029 (0.017) 91985	-0.021 (0.014) 117644	-0.022 (0.014) 117644
DiD ( $m = 6$ ) (standard error) Clusters	0.056 (0.033) 15098	0.051 (0.033) 15098	0.018 (0.029) 29824	0.014 (0.029) 29824	-0.021 (0.024) 46941	-0.028 (0.024) 46941	-0.024 (0.021) 64423	-0.029 (0.021) 64423	-0.034* (0.019) 80167	-0.038* (0.019) 80167	-0.051*** (0.015) 108750	-0.054*** (0.015) 108750
DiD ( $m = 7$ ) (standard error) Clusters	0.002 (0.035) 11364	0.000 (0.038) 11364	-0.063* (0.029) 27261	-0.066* (0.030) 27261	-0.084** (0.026) 40507	-0.087*** (0.026) 40507	-0.070** (0.023) 53920	-0.074** (0.023) 53920	-0.066*** (0.017) 83703	-0.069*** (0.018) 83703	-0.069*** (0.016) 96227	-0.073*** (0.017) 96227
DiD ( $m = 8$ ) (standard error) Clusters	0.019 (0.035) 12536	0.023 (0.035) 12536	0.041 (0.032) 22792	0.040 (0.032) 22792	-0.011 (0.029) 35312	-0.011 (0.030) 35312	-0.017 (0.021) 60813	-0.019 (0.021) 60813	-0.030 (0.019) 71593	-0.034 (0.020) 71593	-0.029 (0.017) 84947	-0.033 (0.018) 84947
DiD ( $m = 9$ ) (standard error) Clusters	0.061 (0.037) 11381	0.051 (0.037) 11381	0.047 (0.033) 20878	0.042 (0.033) 20878	-0.029 (0.023) 43107	-0.030 (0.023) 43107	-0.025 (0.020) 53079	-0.028 (0.020) 53079	-0.039* (0.019) 63081	-0.042* (0.019) 63081	-0.039* (0.018) 74007	-0.043* (0.018) 74007
DiD ( $m = 10$ ) (standard error) Clusters	0.027 (0.044) 8746	0.031 (0.045) 8746	-0.008 (0.026) 31698	-0.006 (0.026) 31698	-0.026 (0.024) 39061	-0.026 (0.024) 39061	-0.020 (0.021) 46609	-0.020 (0.021) 46609	-0.043* (0.021) 56868	-0.046* (0.021) 56868	-0.046* (0.020) 66083	-0.050* (0.020) 66083
DiD ( $m = 11$ ) (standard error) Clusters	-0.080* (0.037) 20273	-0.076* (0.038) 20273	-0.009 (0.029) 27003	-0.004 (0.030) 27003	-0.013 (0.024) 35659	-0.011 (0.024) 35659	0.003 (0.020) 43386	0.004 (0.020) 43386	0.004 (0.019) 50365	0.004 (0.019) 50365	0.003 (0.017) 59206	0.002 (0.018) 59206

Notes: The outcome variable is equal to 1 if a treatment into STT has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^D$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 9: Estimated impact of reform 1982 on treatment probability in SPST for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error) Clusters	-0.024 (0.025) 43926	-0.019 (0.025) 43926	0.004 (0.018) 99069	0.007 (0.018) 99069	-0.001 (0.017) 125209	0.004 (0.017) 125209	-0.001 (0.015) 148533	0.005 (0.015) 148533	-0.002 (0.014) 176778	0.004 (0.014) 176778	-0.004 (0.013) 195217	0.002 (0.013) 195217
DiD ( $m = 2$ ) (standard error) Clusters	0.019 (0.033) 36499	0.013 (0.034) 36499	0.006 (0.025) 68352	0.006 (0.025) 68352	-0.009 (0.020) 109211	-0.002 (0.020) 109211	-0.016 (0.019) 132154	-0.009 (0.019) 132154	-0.023 (0.017) 150023	-0.016 (0.017) 150023	-0.027 (0.016) 171251	-0.021 (0.016) 171251
DiD ( $m = 3$ ) (standard error) Clusters	0.009 (0.038) 28458	0.013 (0.038) 28458	-0.012 (0.028) 54959	-0.008 (0.029) 54959	-0.083** (0.026) 81479	-0.075** (0.026) 81479	-0.086*** (0.022) 113388	-0.079*** (0.022) 113388	-0.077*** (0.020) 130227	-0.068*** (0.020) 130227	-0.075*** (0.018) 148804	-0.068*** (0.018) 148804
DiD ( $m = 4$ ) (standard error) Clusters	-0.044 (0.043) 21248	-0.043 (0.043) 21248	-0.001 (0.033) 46361	0.001 (0.033) 46361	0.003 (0.028) 67007	0.003 (0.028) 67007	-0.012 (0.024) 85986	-0.013 (0.024) 85986	-0.003 (0.020) 116967	-0.002 (0.020) 116967	-0.012 (0.018) 131770	-0.011 (0.018) 131770
DiD ( $m = 5$ ) (standard error) Clusters	0.025 (0.042) 19337	0.025 (0.042) 19337	-0.014 (0.031) 35686	-0.015 (0.031) 35686	-0.034 (0.027) 55427	-0.036 (0.027) 55427	-0.040 (0.024) 75972	-0.043 (0.025) 75972	-0.027 (0.021) 92167	-0.031 (0.022) 92167	-0.021 (0.018) 117865	-0.023 (0.018) 117865
DiD ( $m = 6$ ) (standard error) Clusters	-0.067 (0.044) 15130	-0.075 (0.045) 15130	-0.033 (0.032) 29851	-0.040 (0.033) 29851	-0.071* (0.030) 47033	-0.083** (0.030) 47033	-0.071** (0.027) 64589	-0.080** (0.028) 64589	-0.063** (0.024) 80369	-0.070** (0.024) 80369	-0.046* (0.019) 108981	-0.056** (0.019) 108981
DiD ( $m = 7$ ) (standard error) Clusters	0.038 (0.052) 11386	0.038 (0.054) 11386	-0.021 (0.038) 27309	-0.021 (0.038) 27309	-0.015 (0.031) 40567	-0.021 (0.032) 40567	-0.028 (0.027) 54007	-0.032 (0.028) 54007	-0.006 (0.021) 83823	-0.013 (0.021) 83823	-0.006 (0.019) 96358	-0.013 (0.019) 96358
DiD ( $m = 8$ ) (standard error) Clusters	-0.031 (0.044) 12557	-0.034 (0.044) 12557	-0.029 (0.032) 22795	-0.031 (0.032) 22795	-0.021 (0.031) 35315	-0.025 (0.031) 35315	-0.016 (0.023) 60880	-0.026 (0.024) 60880	-0.009 (0.021) 71650	-0.018 (0.021) 71650	-0.012 (0.019) 85006	-0.012 (0.019) 85006
DiD ( $m = 9$ ) (standard error) Clusters	-0.061 (0.045) 11394	-0.058 (0.048) 11394	-0.038 (0.034) 20884	-0.037 (0.034) 20884	-0.090*** (0.026) 43173	-0.091*** (0.026) 43173	-0.059* (0.024) 53178	-0.063* (0.025) 53178	-0.051* (0.023) 63173	-0.056* (0.023) 63173	-0.051* (0.021) 74102	-0.059** (0.022) 74102
DiD ( $m = 10$ ) (standard error) Clusters	0.000 (0.043) 8745	0.007 (0.043) 8745	-0.036 (0.028) 31708	-0.037 (0.028) 31708	-0.032 (0.024) 39060	-0.037 (0.024) 39060	-0.041 (0.022) 46629	-0.044* (0.022) 46629	-0.033 (0.021) 56876	-0.036 (0.021) 56876	-0.037 (0.019) 66090	-0.041* (0.019) 66090
DiD ( $m = 11$ ) (standard error) Clusters	-0.018 (0.035) 20278	-0.023 (0.036) 20278	-0.021 (0.026) 26995	-0.022 (0.026) 26995	-0.003 (0.022) 35635	-0.006 (0.023) 35635	0.001 (0.020) 43358	-0.004 (0.020) 43358	0.009 (0.019) 50334	0.003 (0.020) 50334	0.010 (0.017) 59163	0.004 (0.017) 59163

Notes: The outcome variable is equal to 1 if a treatment into SPST has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_2^T$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 10: Estimated impact of reform 1982 on treatment probability in RT for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
DiD ( $m = 1$ ) (standard error) Clusters	-0.028 (0.025) 43944	-0.010 (0.018) 99097	-0.055** (0.018) 99097	-0.049** (0.018) 99097	-0.062*** (0.018) 125294	-0.054** (0.018) 125294	-0.074*** (0.018) 148780	-0.061*** (0.019) 148780	-0.069*** (0.017) 177057	-0.058*** (0.017) 177057	-0.061*** (0.015) 195499	-0.051*** (0.015) 195499
DiD ( $m = 2$ ) (standard error) Clusters	-0.019 (0.031) 36476	-0.027 (0.031) 36476	-0.041 (0.025) 68359	-0.040 (0.025) 68359	-0.038 (0.020) 109209	-0.036 (0.020) 109209	-0.022 (0.020) 132202	-0.016 (0.020) 132202	-0.035 (0.018) 150086	-0.029 (0.018) 150086	-0.034* (0.017) 171320	-0.029 (0.017) 171320
DiD ( $m = 3$ ) (standard error) Clusters	0.041 (0.035) 28423	0.046 (0.035) 28423	-0.011 (0.028) 54962	-0.009 (0.028) 54962	-0.081** (0.026) 81483	-0.072** (0.026) 81483	-0.101*** (0.022) 113405	-0.094*** (0.022) 113405	-0.112*** (0.020) 130265	-0.106*** (0.020) 130265	-0.100*** (0.018) 148863	-0.095*** (0.018) 148863
DiD ( $m = 4$ ) (standard error) Clusters	-0.081 (0.042) 21241	-0.084 (0.043) 21241	-0.058 (0.031) 46353	-0.053 (0.031) 46353	-0.081** (0.027) 67030	-0.079** (0.027) 67030	-0.073** (0.024) 86056	-0.073** (0.024) 86056	-0.058** (0.020) 116986	-0.060** (0.020) 116986	-0.056** (0.018) 131771	-0.057** (0.018) 131771
DiD ( $m = 5$ ) (standard error) Clusters	-0.016 (0.039) 19323	-0.016 (0.039) 19323	-0.004 (0.033) 35715	-0.003 (0.033) 35715	0.003 (0.028) 55485	0.002 (0.028) 55485	-0.018 (0.026) 76060	-0.024 (0.026) 76060	-0.042 (0.023) 92281	-0.046 (0.023) 92281	-0.028 (0.019) 117974	-0.031 (0.019) 117974
DiD ( $m = 6$ ) (standard error) Clusters	0.031 (0.040) 15119	0.027 (0.041) 15119	0.036 (0.031) 29859	0.028 (0.032) 29859	-0.005 (0.031) 47057	-0.015 (0.031) 47057	-0.022 (0.028) 64615	-0.032 (0.028) 64615	-0.048 (0.025) 80395	-0.057* (0.025) 80395	-0.046* (0.019) 109003	-0.052** (0.019) 109003
DiD ( $m = 7$ ) (standard error) Clusters	-0.003 (0.035) 11365	-0.001 (0.036) 11365	-0.014 (0.032) 27279	-0.020 (0.032) 27279	-0.026 (0.028) 40548	-0.032 (0.028) 40548	-0.040 (0.026) 54007	-0.044 (0.026) 54007	-0.035 (0.020) 83810	-0.037 (0.020) 83810	-0.048** (0.018) 96336	-0.050** (0.019) 96336
DiD ( $m = 8$ ) (standard error) Clusters	0.021 (0.033) 12531	0.027 (0.034) 12531	0.038 (0.030) 22779	0.034 (0.031) 22779	0.001 (0.026) 35268	-0.005 (0.026) 35268	-0.026 (0.023) 60885	-0.031 (0.023) 60885	-0.021 (0.021) 71682	-0.027 (0.022) 71682	-0.029 (0.020) 85033	-0.035 (0.020) 85033
DiD ( $m = 9$ ) (standard error) Clusters	-0.032 (0.043) 11392	-0.032 (0.043) 11392	-0.039 (0.032) 20884	-0.037 (0.033) 20884	-0.039 (0.024) 43167	-0.037 (0.024) 43167	-0.064** (0.023) 53172	-0.062** (0.023) 53172	-0.054** (0.021) 63167	-0.050* (0.021) 63167	-0.059** (0.020) 74089	-0.056** (0.020) 74089
DiD ( $m = 10$ ) (standard error) Clusters	0.035 (0.048) 8753	0.037 (0.050) 8753	-0.002 (0.028) 31689	0.002 (0.029) 31689	-0.004 (0.024) 39047	-0.000 (0.024) 39047	-0.020 (0.022) 46626	-0.018 (0.022) 46626	-0.019 (0.020) 56862	-0.018 (0.020) 56862	-0.019 (0.018) 66085	-0.019 (0.019) 66085
DiD ( $m = 11$ ) (standard error) Clusters	-0.024 (0.031) 20271	-0.023 (0.031) 20271	0.013 (0.022) 26976	0.013 (0.022) 26976	-0.018 (0.019) 35608	-0.018 (0.019) 35608	-0.006 (0.018) 43350	-0.008 (0.018) 43350	0.001 (0.017) 50330	-0.003 (0.017) 50330	-0.000 (0.015) 59157	-0.005 (0.015) 59157

Notes: The outcome variable is equal to 1 if a treatment into RT has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_P^D$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 11: Estimated impact of reform 1982 on treatment probability in WS for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
DiD (m = 1) (standard error) Clusters	-0.026** (0.010) 43807	-0.025* (0.010) 43807	0.005 (0.009) 98777	0.006 (0.009) 98777	0.021* (0.009) 124837	0.024** (0.009) 124837	0.026** (0.008) 148079	0.028*** (0.008) 148079	0.034*** (0.008) 176239	0.037*** (0.008) 176239	0.040*** (0.007) 194668	0.043*** (0.008) 194668
DiD (m = 2) (standard error) Clusters	-0.017 (0.016) 36381	-0.018 (0.016) 36381	0.003 (0.012) 68101	0.004 (0.012) 68101	0.022* (0.010) 108797	0.023* (0.010) 108797	0.026** (0.009) 131596	0.033*** (0.009) 131596	0.032*** (0.009) 149398	0.033*** (0.009) 149398	0.040*** (0.008) 170587	0.041*** (0.008) 170587
DiD (m = 3) (standard error) Clusters	-0.033* (0.017) 28346	-0.030 (0.017) 28346	-0.006 (0.014) 54748	-0.006 (0.014) 54748	0.013 (0.012) 81090	0.014 (0.013) 81090	0.026** (0.011) 112855	0.027* (0.011) 112855	0.028** (0.010) 129620	0.029** (0.010) 129620	0.031*** (0.009) 148169	0.032*** (0.009) 148169
DiD (m = 4) (standard error) Clusters	-0.010 (0.017) 21165	-0.013 (0.018) 21165	0.020 (0.014) 46154	0.019 (0.014) 46154	0.014 (0.011) 66695	0.013 (0.011) 66695	0.023* (0.010) 85619	0.021* (0.011) 85619	0.034*** (0.009) 116473	0.032*** (0.009) 116473	0.033*** (0.008) 131221	0.031*** (0.009) 131221
DiD (m = 5) (standard error) Clusters	-0.018 (0.014) 19259	-0.016 (0.014) 19259	-0.012 (0.012) 35555	-0.012 (0.012) 35555	0.006 (0.011) 55200	0.007 (0.011) 55200	0.015 (0.010) 75625	0.014 (0.010) 75625	0.018 (0.009) 91766	0.016 (0.009) 91766	0.025** (0.008) 117397	0.024** (0.008) 117397
DiD (m = 6) (standard error) Clusters	-0.031 (0.019) 15074	-0.031 (0.019) 15074	-0.018 (0.011) 29738	-0.019 (0.011) 29738	-0.003 (0.010) 46787	-0.004 (0.010) 46787	0.012 (0.010) 64222	0.011 (0.010) 64222	0.018 (0.009) 79926	0.017 (0.009) 79926	0.016* (0.008) 108477	0.015 (0.008) 108477
DiD (m = 7) (standard error) Clusters	-0.057** (0.020) 11346	-0.056** (0.020) 11346	-0.016 (0.013) 27174	-0.017 (0.013) 27174	-0.008 (0.011) 40367	-0.008 (0.011) 40367	0.003 (0.010) 53737	0.003 (0.010) 53737	0.005 (0.007) 83432	0.004 (0.008) 83432	0.005 (0.007) 95919	0.005 (0.007) 95919
DiD (m = 8) (standard error) Clusters	-0.009 (0.013) 12506	-0.009 (0.013) 12506	-0.002 (0.010) 22705	-0.002 (0.010) 22705	0.008 (0.010) 35144	0.008 (0.010) 35144	0.005 (0.007) 60593	0.005 (0.007) 60593	0.007 (0.007) 71323	0.007 (0.007) 71323	0.013* (0.006) 84637	0.012* (0.006) 84637
DiD (m = 9) (standard error) Clusters	-0.026 (0.022) 11358	-0.028 (0.023) 11358	-0.026 (0.014) 20809	-0.026 (0.014) 20809	-0.009 (0.009) 42978	-0.008 (0.009) 42978	-0.014 (0.008) 52916	-0.014 (0.008) 52916	-0.015* (0.007) 62865	-0.015* (0.007) 62865	-0.012 (0.006) 73752	-0.012 (0.006) 73752
DiD (m = 10) (standard error) Clusters	0.000 (.) 8719	0.000 (.) 8719	0.018** (0.006) 31590	0.020** (0.007) 31590	0.020*** (0.006) 38910	0.021*** (0.006) 38910	0.020** (0.007) 46440	0.020** (0.007) 46440	0.019** (0.006) 56631	0.018** (0.006) 56631	0.016** (0.005) 65822	0.015** (0.005) 65822
DiD (m = 11) (standard error) Clusters	-0.020 (0.014) 20240	-0.021 (0.015) 20240	0.003 (0.010) 26928	0.003 (0.010) 26928	0.001 (0.007) 35531	0.001 (0.007) 35531	-0.001 (0.006) 43231	-0.002 (0.006) 43231	0.000 (0.006) 50178	0.000 (0.006) 50178	-0.000 (0.005) 58979	-0.000 (0.005) 58979

Notes: The outcome variable is equal to 1 if a treatment into WS has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_2^D$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 12: Estimated impact of reform 1982 on treatment probability in PF for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error) Clusters	-0.008 (0.007) 18064	-0.007 (0.007) 18064	-0.002 (0.006) 53503	-0.001 (0.006) 53503	0.002 (0.005) 69543	0.002 (0.005) 69543	0.001 (0.005) 85671	0.001 (0.005) 85671	-0.001 (0.004) 110376	-0.001 (0.005) 110376	-0.001 (0.004) 124098	-0.001 (0.004) 124098
DiD ( $m = 2$ ) (standard error) Clusters	0.007 (0.010) 21339	0.008 (0.010) 21339	0.002 (0.009) 36830	0.002 (0.009) 36830	0.003 (0.007) 65418	0.003 (0.007) 65418	0.001 (0.006) 83322	0.001 (0.006) 83322	-0.000 (0.006) 95823	-0.000 (0.006) 95823	0.001 (0.005) 113990	0.001 (0.005) 113990
DiD ( $m = 3$ ) (standard error) Clusters	-0.002 (0.009) 19395	-0.003 (0.009) 19395	0.006 (0.009) 35134	0.005 (0.010) 35134	0.005 (0.008) 51908	0.005 (0.008) 51908	0.002 (0.006) 75952	0.002 (0.006) 75952	0.004 (0.006) 88672	0.004 (0.006) 88672	0.007 (0.005) 104316	0.007 (0.005) 104316
DiD ( $m = 4$ ) (standard error) Clusters	-0.011 (0.012) 15136	-0.012 (0.012) 15136	-0.009 (0.011) 35416	-0.012 (0.011) 35416	-0.008 (0.008) 47772	-0.010 (0.009) 47772	-0.009 (0.008) 59818	-0.011 (0.008) 59818	-0.003 (0.006) 86428	-0.005 (0.007) 86428	-0.003 (0.006) 97413	-0.004 (0.006) 97413
DiD ( $m = 5$ ) (standard error) Clusters	-0.001 (0.012) 16609	-0.002 (0.012) 16609	-0.004 (0.009) 28590	-0.004 (0.009) 28590	0.005 (0.008) 44180	0.004 (0.008) 44180	0.004 (0.007) 59291	0.003 (0.007) 59291	0.004 (0.006) 69747	0.003 (0.006) 69747	0.001 (0.005) 91005	0.001 (0.005) 91005
DiD ( $m = 6$ ) (standard error) Clusters	-0.016 (0.017) 12832	-0.015 (0.017) 12832	-0.009 (0.011) 24568	-0.008 (0.010) 24568	-0.015 (0.009) 38489	-0.015 (0.009) 38489	-0.007 (0.008) 51662	-0.008 (0.008) 51662	-0.003 (0.007) 61739	-0.004 (0.007) 61739	-0.003 (0.006) 83236	-0.005 (0.006) 83236
DiD ( $m = 7$ ) (standard error) Clusters	0.023 (0.016) 8721	0.023 (0.016) 8721	0.009 (0.014) 23206	0.009 (0.014) 23206	0.014 (0.012) 32954	0.015 (0.012) 32954	0.011 (0.010) 42420	0.011 (0.010) 42420	0.010 (0.008) 66240	0.010 (0.008) 66240	0.007 (0.007) 73117	0.007 (0.007) 73117
DiD ( $m = 8$ ) (standard error) Clusters	0.000 (0.007) 11271	0.001 (0.007) 11271	0.003 (0.009) 18728	0.003 (0.009) 18728	0.004 (0.010) 29422	0.004 (0.010) 29422	-0.001 (0.007) 50306	-0.001 (0.007) 50306	0.001 (0.006) 57315	0.001 (0.006) 57315	0.001 (0.006) 66787	0.001 (0.006) 66787
DiD ( $m = 9$ ) (standard error) Clusters	0.004 (0.008) 9920	0.002 (0.008) 9920	0.004 (0.007) 17778	0.004 (0.007) 17778	-0.001 (0.008) 35954	-0.002 (0.008) 35954	0.000 (0.008) 44236	-0.001 (0.008) 44236	-0.001 (0.007) 51552	-0.001 (0.007) 51552	-0.005 (0.007) 59542	-0.005 (0.007) 59542
DiD ( $m = 10$ ) (standard error) Clusters	0.000 (.) 6946	0.000 (.) 6946	-0.005 (0.008) 27104	-0.005 (0.008) 27104	-0.005 (0.009) 32932	-0.006 (0.009) 32932	-0.003 (0.008) 38263	-0.003 (0.008) 38263	-0.002 (0.007) 47389	-0.002 (0.007) 47389	-0.003 (0.007) 54631	-0.003 (0.007) 54631
DiD ( $m = 11$ ) (standard error) Clusters	0.002 (0.013) 17184	0.002 (0.014) 17184	0.007 (0.011) 22167	0.006 (0.012) 22167	0.015 (0.009) 29719	0.015 (0.010) 29719	0.015 (0.008) 36442	0.013 (0.008) 36442	0.014 (0.007) 41773	0.013 (0.008) 41773	0.011 (0.007) 49928	0.011 (0.007) 49928

Notes: The outcome variable is equal to 1 if a treatment into PF has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.



Table 13: Estimated impact of reform 1982 on treatment probability in STT for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error)	-0.004 (0.006)	-0.003 (0.006)	-0.001 (0.008)	-0.001 (0.007)	0.002 (0.007)	0.003 (0.007)	-0.003 (0.007)	-0.002 (0.007)	-0.006 (0.006)	-0.007 (0.006)	-0.008 (0.006)	-0.008 (0.006)
Clusters	18063	18063	53518	53518	69566	69566	85701	85701	110427	110427	124159	124159
DiD ( $m = 2$ ) (standard error)	0.028 (0.017)	0.029 (0.018)	0.010 (0.014)	0.011 (0.011)	0.002 (0.011)	0.002 (0.011)	-0.005 (0.010)	-0.005 (0.010)	-0.003 (0.009)	-0.004 (0.009)	-0.010 (0.008)	-0.009 (0.008)
Clusters	21358	21358	36867	36867	65493	65493	83406	83406	95923	95923	114110	114110
DiD ( $m = 3$ ) (standard error)	0.035 (0.019)	0.035 (0.019)	0.020 (0.015)	0.019 (0.015)	0.018 (0.014)	0.016 (0.014)	0.016 (0.011)	0.014 (0.011)	0.005 (0.010)	0.005 (0.010)	-0.002 (0.009)	-0.003 (0.009)
Clusters	19417	19417	35177	35177	51984	51984	76058	76058	88808	88808	104468	104468
DiD ( $m = 4$ ) (standard error)	-0.012 (0.018)	-0.009 (0.019)	-0.003 (0.019)	-0.006 (0.019)	-0.018 (0.016)	-0.022 (0.017)	-0.020 (0.014)	-0.022 (0.014)	-0.024* (0.012)	-0.023 (0.012)	-0.019 (0.011)	-0.020 (0.011)
Clusters	15146	15146	35489	35489	47876	47876	59947	59947	86603	86603	97602	97602
DiD ( $m = 5$ ) (standard error)	-0.054* (0.023)	-0.055* (0.024)	-0.062*** (0.018)	-0.060*** (0.018)	-0.058*** (0.016)	-0.059*** (0.016)	-0.045** (0.015)	-0.046** (0.015)	-0.047*** (0.014)	-0.046*** (0.013)	-0.039*** (0.011)	-0.040*** (0.012)
Clusters	16633	16633	28638	28638	44272	44272	59426	59426	69913	69913	91212	91212
DiD ( $m = 6$ ) (standard error)	0.018 (0.024)	0.022 (0.024)	-0.004 (0.022)	-0.003 (0.018)	-0.002 (0.018)	-0.003 (0.018)	-0.012 (0.017)	-0.012 (0.017)	-0.004 (0.015)	-0.004 (0.015)	-0.009 (0.012)	-0.011 (0.012)
Clusters	12845	12845	24618	24618	38577	38577	51792	51792	61884	61884	83407	83407
DiD ( $m = 7$ ) (standard error)	0.028 (0.031)	0.030 (0.032)	-0.000 (0.026)	0.004 (0.026)	-0.026 (0.022)	-0.019 (0.022)	-0.037 (0.019)	-0.032 (0.019)	-0.035* (0.015)	-0.034* (0.015)	-0.036* (0.014)	-0.037*** (0.014)
Clusters	8736	8736	23275	23275	33053	33053	42537	42537	66413	66413	73317	73317
DiD ( $m = 8$ ) (standard error)	0.020 (0.025)	0.022 (0.026)	0.018 (0.022)	0.019 (0.023)	0.026 (0.020)	0.025 (0.020)	-0.024 (0.015)	-0.025 (0.015)	-0.030* (0.015)	-0.028 (0.015)	-0.039*** (0.014)	-0.042*** (0.014)
Clusters	11292	11292	18770	18770	29491	29491	50416	50416	57450	57450	66955	66955
DiD ( $m = 9$ ) (standard error)	-0.010 (0.024)	-0.011 (0.024)	-0.032 (0.026)	-0.029 (0.026)	-0.016 (0.017)	-0.018 (0.017)	-0.026 (0.015)	-0.027 (0.015)	-0.041** (0.016)	-0.042*** (0.015)	-0.052*** (0.015)	-0.052*** (0.015)
Clusters	9935	9935	17825	17825	36029	36029	44328	44328	51685	51685	59700	59700
DiD ( $m = 10$ ) (standard error)	-0.015 (0.027)	-0.017 (0.027)	-0.030 (0.019)	-0.033 (0.020)	-0.021 (0.017)	-0.023 (0.017)	-0.020 (0.016)	-0.022 (0.016)	-0.027 (0.016)	-0.025 (0.016)	-0.024 (0.015)	-0.024 (0.015)
Clusters	6956	6956	27162	27162	32996	32996	38334	38334	47494	47494	54756	54756
DiD ( $m = 11$ ) (standard error)	-0.032 (0.026)	-0.030 (0.027)	-0.032 (0.022)	-0.033 (0.023)	-0.025 (0.019)	-0.028 (0.020)	-0.021 (0.017)	-0.024 (0.017)	-0.022 (0.017)	-0.019 (0.016)	-0.020 (0.016)	-0.023 (0.016)
Clusters	17213	17213	22211	22211	29785	29785	36525	36525	41874	41874	50061	50061

Notes: The outcome variable is equal to 1 if a treatment into STT has started and is 0 in case of no treatment. DID refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 14: Estimated impact of reform 1982 on treatment probability in SPST for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD (m = 1) (standard error) Clusters	-0.023 (0.024) 18105	-0.023 (0.024) 18105	0.028 (0.023) 53777	0.033 (0.023) 53777	0.033 (0.020) 69905	0.039 (0.020) 69905	0.004 (0.018) 86134	0.010 (0.018) 86134	0.012 (0.016) 110989	0.015 (0.016) 110989	0.012 (0.015) 124723	0.015 (0.015) 124723
DiD (m = 2) (standard error) Clusters	-0.051 (0.036) 21445	-0.052 (0.036) 21445	-0.032 (0.026) 37015	-0.029 (0.026) 37015	-0.039 (0.022) 65841	-0.038 (0.023) 65841	-0.061** (0.021) 83880	-0.061** (0.021) 83880	-0.061*** (0.018) 96427	-0.060** (0.019) 96427	-0.052** (0.016) 114639	-0.050** (0.016) 114639
DiD (m = 3) (standard error) Clusters	0.013 (0.042) 19533	0.012 (0.043) 19533	-0.009 (0.031) 35362	-0.015 (0.031) 35362	-0.014 (0.030) 52380	-0.029 (0.030) 52380	-0.017 (0.025) 76651	-0.025 (0.026) 76651	-0.023 (0.022) 89420	-0.028 (0.022) 89420	-0.020 (0.019) 105108	-0.023 (0.019) 105108
DiD (m = 4) (standard error) Clusters	0.044 (0.036) 15200	0.029 (0.036) 15200	0.037 (0.034) 35714	0.016 (0.035) 35714	0.022 (0.029) 48175	0.005 (0.029) 48175	0.012 (0.025) 60313	-0.003 (0.026) 60313	0.018 (0.021) 87091	0.006 (0.021) 87091	0.016 (0.019) 98086	0.009 (0.019) 98086
DiD (m = 5) (standard error) Clusters	0.031 (0.040) 16703	0.027 (0.040) 16703	0.018 (0.030) 28754	0.012 (0.031) 28754	-0.003 (0.028) 44511	-0.010 (0.028) 44511	-0.040 (0.025) 59784	-0.045 (0.026) 59784	-0.020 (0.023) 70288	-0.026 (0.025) 70288	-0.019 (0.019) 91605	-0.024 (0.019) 91605
DiD (m = 6) (standard error) Clusters	-0.100* (0.049) 12920	-0.087 (0.049) 12920	-0.034 (0.035) 24736	-0.022 (0.035) 24736	-0.045 (0.032) 38821	-0.040 (0.032) 38821	-0.069* (0.028) 52112	-0.069* (0.028) 52112	-0.043 (0.025) 62233	-0.042 (0.025) 62233	-0.051** (0.019) 83775	-0.052** (0.019) 83775
DiD (m = 7) (standard error) Clusters	0.094 (0.053) 8767	0.092 (0.053) 8767	0.035 (0.040) 23395	0.047 (0.041) 23395	-0.019 (0.033) 33216	-0.006 (0.033) 33216	-0.050 (0.028) 42732	-0.041 (0.028) 42732	-0.030 (0.022) 66683	-0.030 (0.022) 66683	-0.035 (0.020) 73583	-0.034 (0.020) 73583
DiD (m = 8) (standard error) Clusters	0.006 (0.043) 11334	-0.007 (0.044) 11334	0.015 (0.036) 18848	0.007 (0.036) 18848	0.010 (0.032) 29639	0.011 (0.033) 29639	-0.051* (0.024) 50656	-0.051* (0.024) 50656	-0.034 (0.023) 57707	-0.036 (0.023) 57707	-0.045* (0.021) 67221	-0.050* (0.021) 67221
DiD (m = 9) (standard error) Clusters	-0.067 (0.048) 9981	-0.067 (0.049) 9981	-0.021 (0.036) 17882	-0.022 (0.036) 17882	-0.069* (0.027) 36195	-0.074** (0.027) 36195	-0.054* (0.025) 44535	-0.053* (0.026) 44535	-0.057* (0.023) 51881	-0.056* (0.024) 51881	-0.055* (0.022) 59892	-0.056* (0.023) 59892
DiD (m = 10) (standard error) Clusters	-0.019 (0.045) 6974	-0.020 (0.047) 6974	-0.042 (0.029) 27244	-0.048 (0.029) 27244	-0.034 (0.025) 33098	-0.040 (0.025) 33098	-0.036 (0.024) 38471	-0.041 (0.024) 38471	-0.025 (0.023) 47666	-0.030 (0.023) 47666	-0.020 (0.021) 54929	-0.023 (0.021) 54929
DiD (m = 11) (standard error) Clusters	-0.055 (0.028) 17227	-0.057* (0.029) 17227	-0.029 (0.024) 22236	-0.032 (0.024) 22236	-0.060* (0.026) 29855	-0.069* (0.027) 29855	-0.060* (0.023) 36625	-0.068** (0.024) 36625	-0.042 (0.022) 41981	-0.049* (0.022) 41981	-0.035 (0.019) 50146	-0.040* (0.019) 50146

Notes: The outcome variable is equal to 1 if a treatment into SPST has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_2^T$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 15: Estimated impact of reform 1982 on treatment probability in RT for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error) Clusters	0.006 (0.024) 18102	0.006 (0.024) 18102	-0.018 (0.017) 53650	-0.015 (0.017) 53650	-0.028 (0.017) 69807	-0.024 (0.017) 69807	-0.020 (0.016) 86039	-0.016 (0.016) 86039	-0.034* (0.014) 110841	-0.031* (0.014) 110841	-0.035** (0.014) 124588	-0.033** (0.013) 124588
DiD ( $m = 2$ ) (standard error) Clusters	0.039 (0.029) 21415	0.040 (0.030) 21415	0.015 (0.020) 36944	0.014 (0.021) 36944	0.004 (0.018) 65678	0.005 (0.018) 65678	0.006 (0.017) 83719	0.006 (0.017) 83719	-0.002 (0.015) 96246	-0.001 (0.015) 96246	0.001 (0.014) 114436	0.004 (0.014) 114436
DiD ( $m = 3$ ) (standard error) Clusters	-0.029 (0.031) 19466	-0.032 (0.031) 19466	-0.014 (0.022) 35242	-0.015 (0.022) 35242	-0.036 (0.021) 52150	-0.039 (0.022) 52150	-0.029 (0.019) 76315	-0.031 (0.019) 76315	-0.026 (0.016) 89071	-0.028 (0.016) 89071	-0.023 (0.014) 104737	-0.025 (0.014) 104737
DiD ( $m = 4$ ) (standard error) Clusters	-0.013 (0.025) 15162	-0.014 (0.025) 15162	-0.005 (0.023) 35540	-0.006 (0.024) 35540	-0.025 (0.021) 47963	-0.026 (0.021) 47963	-0.026 (0.019) 60067	-0.028 (0.019) 60067	-0.026 (0.015) 86745	-0.028 (0.015) 86745	-0.019 (0.014) 97751	-0.020 (0.014) 97751
DiD ( $m = 5$ ) (standard error) Clusters	-0.046 (0.030) 16659	-0.045 (0.031) 16659	-0.026 (0.027) 28671	-0.026 (0.022) 28671	-0.042* (0.021) 44348	-0.042* (0.021) 44348	-0.030 (0.019) 59551	-0.030 (0.019) 59551	-0.023 (0.017) 70035	-0.023 (0.017) 70035	-0.013 (0.014) 91331	-0.013 (0.014) 91331
DiD ( $m = 6$ ) (standard error) Clusters	-0.007 (0.037) 12875	-0.005 (0.038) 12875	-0.039 (0.027) 24656	-0.036 (0.028) 24656	-0.064* (0.025) 38683	-0.062* (0.025) 38683	-0.026 (0.022) 51919	-0.025 (0.022) 51919	-0.015 (0.019) 62030	-0.015 (0.020) 62030	-0.010 (0.015) 83553	-0.011 (0.015) 83553
DiD ( $m = 7$ ) (standard error) Clusters	0.026 (0.039) 8746	0.027 (0.040) 8746	-0.011 (0.026) 23267	-0.010 (0.026) 23267	-0.011 (0.022) 33049	-0.010 (0.022) 33049	0.003 (0.020) 42556	0.002 (0.020) 42556	-0.013 (0.015) 66437	-0.016 (0.015) 66437	-0.006 (0.015) 73336	-0.008 (0.015) 73336
DiD ( $m = 8$ ) (standard error) Clusters	-0.005 (0.034) 11307	-0.006 (0.034) 11307	-0.036 (0.028) 18794	-0.036 (0.028) 18794	-0.013 (0.024) 29536	-0.014 (0.025) 29536	-0.024 (0.019) 50512	-0.024 (0.019) 50512	-0.023 (0.017) 57546	-0.023 (0.017) 57546	-0.016 (0.016) 67045	-0.018 (0.016) 67045
DiD ( $m = 9$ ) (standard error) Clusters	-0.029 (0.034) 9946	-0.029 (0.033) 9946	0.006 (0.025) 17826	0.008 (0.025) 17826	-0.041* (0.020) 36090	-0.044* (0.021) 36090	-0.021 (0.019) 44414	-0.024 (0.019) 44414	-0.022 (0.018) 51754	-0.025 (0.018) 51754	-0.014 (0.018) 59760	-0.017 (0.018) 59760
DiD ( $m = 10$ ) (standard error) Clusters	-0.071 (0.038) 6966	-0.073 (0.040) 6966	-0.049* (0.022) 27166	-0.052* (0.022) 27166	-0.035 (0.018) 33009	-0.038* (0.019) 33009	-0.030 (0.017) 38358	-0.034 (0.017) 38358	-0.025 (0.015) 47507	-0.029 (0.016) 47507	-0.021 (0.014) 54760	-0.023 (0.014) 54760
DiD ( $m = 11$ ) (standard error) Clusters	0.019 (0.027) 17200	0.020 (0.027) 17200	-0.025 (0.022) 22192	-0.025 (0.022) 22192	-0.030 (0.018) 29762	-0.030 (0.018) 29762	-0.023 (0.016) 36514	-0.023 (0.016) 36514	-0.009 (0.015) 41859	-0.010 (0.015) 41859	-0.009 (0.013) 50024	-0.010 (0.013) 50024

Notes: The outcome variable is equal to 1 if a treatment into RT has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_{RT}^D$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 16: Estimated impact of reform 1982 on treatment probability in WS for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error) Clusters	0.007 (0.011) 18070	0.007 (0.012) 18070	0.001 (0.007) 53509	0.001 (0.007) 53509	0.008 (0.007) 69554	0.008 (0.007) 69554	0.016* (0.006) 85689	0.016* (0.006) 85689	0.017** (0.006) 110395	0.018** (0.006) 110395	0.017** (0.005) 124117	0.018*** (0.005) 124117
DiD ( $m = 2$ ) (standard error) Clusters	-0.009 (0.008) 21336	-0.009 (0.008) 21336	0.003 (0.006) 36819	0.004 (0.006) 36819	0.021*** (0.006) 65406	0.020*** (0.006) 65406	0.020*** (0.006) 83302	0.020*** (0.006) 83302	0.022*** (0.005) 95807	0.022*** (0.006) 95807	0.022*** (0.005) 113963	0.022*** (0.005) 113963
DiD ( $m = 3$ ) (standard error) Clusters	-0.020 (0.011) 19399	-0.022* (0.011) 19399	-0.009 (0.008) 35130	-0.009 (0.008) 35130	0.009 (0.008) 51907	0.009 (0.008) 51907	0.015* (0.007) 75950	0.015* (0.007) 75950	0.017** (0.006) 88677	0.017** (0.006) 88677	0.018** (0.006) 104314	0.018** (0.006) 104314
DiD ( $m = 4$ ) (standard error) Clusters	-0.021 (0.013) 15136	-0.022 (0.013) 15136	-0.006 (0.008) 35402	-0.006 (0.008) 35402	0.002 (0.007) 47760	0.002 (0.007) 47760	0.009 (0.007) 59809	0.009 (0.007) 59809	0.013* (0.006) 86407	0.012* (0.006) 86407	0.012* (0.005) 97389	0.012* (0.005) 97389
DiD ( $m = 5$ ) (standard error) Clusters	-0.053** (0.017) 16615	-0.054** (0.018) 16615	-0.027* (0.011) 28599	-0.027* (0.011) 28599	-0.015 (0.008) 44176	-0.015 (0.008) 44176	-0.010 (0.008) 59292	-0.010 (0.008) 59292	-0.009 (0.007) 69748	-0.009 (0.007) 69748	-0.004 (0.006) 91003	-0.004 (0.006) 91003
DiD ( $m = 6$ ) (standard error) Clusters	-0.042** (0.014) 12831	-0.042** (0.014) 12831	-0.022* (0.009) 24564	-0.021* (0.009) 24564	-0.006 (0.008) 38483	-0.007 (0.008) 38483	0.004 (0.007) 51643	0.003 (0.007) 51643	0.008 (0.007) 61718	0.007 (0.007) 61718	0.007 (0.006) 83216	0.006 (0.006) 83216
DiD ( $m = 7$ ) (standard error) Clusters	0.014 (0.010) 8718	0.013 (0.009) 8718	0.010 (0.010) 23190	0.010 (0.010) 23190	0.006 (0.008) 32928	0.006 (0.008) 32928	0.017* (0.008) 42389	0.017* (0.008) 42389	0.012* (0.005) 66201	0.012* (0.005) 66201	0.012* (0.005) 73081	0.012* (0.005) 73081
DiD ( $m = 8$ ) (standard error) Clusters	-0.021 (0.012) 11272	-0.022 (0.013) 11272	-0.018* (0.008) 18725	-0.019* (0.008) 18725	-0.003 (0.007) 29410	-0.002 (0.007) 29410	0.000 (0.005) 50294	0.001 (0.006) 50294	0.001 (0.005) 57301	0.001 (0.005) 57301	0.001 (0.004) 66769	0.001 (0.004) 66769
DiD ( $m = 9$ ) (standard error) Clusters	-0.014 (0.012) 9921	-0.012 (0.011) 9921	-0.010 (0.009) 17779	-0.009 (0.009) 17779	0.000 (0.006) 35944	0.001 (0.006) 35944	0.000 (0.005) 44221	0.000 (0.005) 44221	0.000 (0.005) 51536	0.001 (0.005) 51536	-0.000 (0.004) 59526	-0.001 (0.004) 59526
DiD ( $m = 10$ ) (standard error) Clusters	0.007 (0.014) 6949	0.006 (0.014) 6949	-0.002 (0.007) 27101	-0.002 (0.007) 27101	-0.004 (0.006) 32924	-0.004 (0.006) 32924	-0.002 (0.005) 38249	-0.002 (0.006) 38249	-0.000 (0.005) 47371	-0.001 (0.005) 47371	0.000 (0.005) 54611	0.000 (0.005) 54611
DiD ( $m = 11$ ) (standard error) Clusters	-0.008 (0.009) 17177	-0.008 (0.010) 17177	-0.008 (0.007) 22156	-0.007 (0.007) 22156	-0.001 (0.005) 29699	-0.001 (0.004) 29699	0.006 (0.006) 36427	0.006 (0.005) 36427	0.005 (0.005) 41755	0.005 (0.005) 41755	0.003 (0.004) 49908	0.003 (0.004) 49908

Notes: The outcome variable is equal to 1 if a treatment into WS has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_2^D$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 17: Estimated impact of reform 1986 on treatment probability in PF for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error) Clusters	0.005 (0.008) 45925	0.005 (0.009) 45925	-0.029*** (0.008) 120270	-0.028*** (0.008) 120270	-0.032*** (0.008) 149341	-0.031*** (0.008) 149341	-0.039*** (0.007) 174281	-0.038*** (0.006) 206376	-0.037*** (0.006) 206376	-0.037*** (0.006) 206376	-0.037*** (0.006) 227043	-0.035*** (0.006) 227043
DiD ( $m = 2$ ) (standard error) Clusters	-0.034* (0.014) 40064	-0.034* (0.014) 40064	-0.051*** (0.011) 73803	-0.050*** (0.011) 73803	-0.050*** (0.009) 130999	-0.049*** (0.009) 130999	-0.047*** (0.008) 157688	-0.043*** (0.008) 177356	-0.043*** (0.008) 177356	-0.043*** (0.007) 201282	-0.044*** (0.007) 201282	
DiD ( $m = 3$ ) (standard error) Clusters	-0.039* (0.019) 31033	-0.039* (0.020) 31033	-0.080*** (0.016) 59305	-0.080*** (0.017) 59305	-0.064*** (0.013) 90345	-0.063*** (0.013) 90345	-0.053*** (0.011) 134831	-0.047*** (0.010) 154313	-0.047*** (0.010) 154313	-0.046*** (0.009) 176484	-0.046*** (0.009) 176484	
DiD ( $m = 4$ ) (standard error) Clusters	-0.075** (0.024) 22175	-0.076** (0.025) 22175	-0.055*** (0.016) 51548	-0.055*** (0.017) 51548	-0.037** (0.013) 74506	-0.037** (0.013) 74506	-0.051*** (0.012) 96092	-0.052*** (0.010) 140744	-0.052*** (0.010) 140744	-0.049*** (0.009) 157693	-0.050*** (0.009) 157693	
DiD ( $m = 5$ ) (standard error) Clusters	-0.054* (0.026) 21931	-0.053* (0.026) 21931	-0.059** (0.019) 39826	-0.059** (0.019) 39826	-0.082*** (0.016) 62939	-0.083*** (0.016) 62939	-0.081*** (0.014) 87210	-0.064*** (0.013) 105746	-0.063*** (0.013) 105746	-0.059*** (0.011) 143598	-0.061*** (0.011) 143598	
DiD ( $m = 6$ ) (standard error) Clusters	-0.058* (0.029) 17966	-0.059* (0.030) 17966	-0.058** (0.019) 34457	-0.058** (0.019) 34457	-0.064*** (0.016) 54771	-0.066*** (0.016) 54771	-0.067*** (0.014) 75223	-0.058*** (0.012) 94030	-0.058*** (0.012) 94030	-0.028** (0.009) 133985	-0.030** (0.009) 133985	
DiD ( $m = 7$ ) (standard error) Clusters	-0.033 (0.022) 13523	-0.032 (0.022) 13523	-0.070*** (0.018) 33808	-0.070*** (0.018) 33808	-0.057*** (0.016) 48686	-0.057*** (0.016) 48686	-0.072*** (0.015) 64539	-0.036*** (0.010) 106416	-0.036*** (0.010) 106416	-0.042*** (0.010) 124605	-0.045*** (0.010) 124605	
DiD ( $m = 8$ ) (standard error) Clusters	-0.040* (0.019) 16120	-0.041* (0.020) 16120	-0.039* (0.017) 28279	-0.039* (0.018) 28279	-0.063*** (0.016) 44465	-0.063*** (0.016) 44465	-0.039*** (0.011) 80510	-0.040*** (0.010) 96283	-0.040*** (0.010) 96283	-0.036*** (0.009) 116185	-0.038*** (0.009) 116185	
DiD ( $m = 9$ ) (standard error) Clusters	-0.027 (0.023) 14603	-0.027 (0.023) 14603	-0.022 (0.017) 26992	-0.022 (0.017) 26992	-0.018 (0.010) 59692	-0.020 (0.010) 59692	-0.029** (0.011) 75733	-0.031** (0.010) 91029	-0.032** (0.010) 91029	-0.024* (0.010) 108754	-0.025** (0.010) 108754	
DiD ( $m = 10$ ) (standard error) Clusters	-0.055 (0.035) 11450	-0.056 (0.037) 11450	-0.011 (0.013) 45927	-0.017 (0.014) 45927	-0.032** (0.011) 58468	-0.036** (0.012) 58468	-0.030** (0.011) 71326	-0.033*** (0.010) 89462	-0.035*** (0.010) 89462	-0.028** (0.009) 103140	-0.031*** (0.009) 103140	
DiD ( $m = 11$ ) (standard error) Clusters	-0.007 (0.014) 31277	-0.014 (0.015) 31277	-0.022 (0.013) 42832	-0.027* (0.013) 42832	-0.032** (0.010) 57678	-0.036*** (0.010) 57678	-0.038*** (0.010) 72362	-0.038*** (0.009) 83974	-0.039*** (0.009) 83974	-0.032*** (0.008) 97927	-0.033*** (0.008) 97927	
DiD ( $m = 12$ ) (standard error) Clusters	-0.070** (0.027) 20187	-0.070* (0.027) 20187	-0.086*** (0.022) 32253	-0.087*** (0.022) 32253	-0.067*** (0.017) 45728	-0.068*** (0.017) 45728	-0.063*** (0.014) 59161	-0.055*** (0.013) 70125	-0.055*** (0.013) 70125	-0.052*** (0.011) 82299	-0.055*** (0.011) 82299	

Notes: The outcome variable is equal to 1 if a treatment into PF has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 18: Estimated impact of reform 1986 on treatment probability in STT for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls	-0.000 (0.014)	-0.000 (0.014)	0.003 (0.011)	0.006 (0.011)	0.015 (0.010)	0.017 (0.010)	0.019* (0.009)	0.021* (0.009)	0.014 (0.008)	0.017* (0.008)	0.018* (0.008)	0.020* (0.008)
DiD (m = 1) (standard error)	45953	45953	120324	120324	149406	149406	174362	174362	206483	206483	227164	227164
Clusters	0.006 (0.022)	0.008 (0.023)	0.045** (0.017)	0.050** (0.018)	0.037** (0.014)	0.043** (0.014)	0.041*** (0.012)	0.048*** (0.012)	0.043*** (0.011)	0.049*** (0.011)	0.050*** (0.010)	0.056*** (0.010)
DiD (m = 2) (standard error)	40104	40104	73908	73908	131170	131170	157874	157874	177555	177555	201498	201498
Clusters	0.009 (0.026)	0.013 (0.026)	0.021 (0.022)	0.029 (0.022)	0.036* (0.018)	0.045* (0.018)	0.059*** (0.015)	0.062*** (0.014)	0.062*** (0.014)	0.064*** (0.014)	0.057*** (0.012)	0.058*** (0.013)
DiD (m = 3) (standard error)	31072	31072	59388	59388	90481	90481	135031	135031	154537	154537	176731	176731
Clusters	0.049 (0.036)	0.049 (0.036)	0.000 (0.026)	0.002 (0.026)	0.036 (0.023)	0.040 (0.023)	0.035 (0.020)	0.041* (0.020)	0.047** (0.016)	0.048** (0.016)	0.051*** (0.015)	0.053*** (0.015)
DiD (m = 4) (standard error)	22202	22202	51633	51633	74668	74668	96305	96305	141000	141000	157959	157959
Clusters	0.079* (0.037)	0.078* (0.037)	0.099*** (0.028)	0.096*** (0.028)	0.094*** (0.024)	0.091*** (0.024)	0.091*** (0.020)	0.089*** (0.020)	0.075*** (0.018)	0.075*** (0.018)	0.080*** (0.015)	0.078*** (0.015)
DiD (m = 5) (standard error)	21956	21956	39890	39890	63071	63071	87369	87369	105925	105925	143810	143810
Clusters	0.059 (0.033)	0.051 (0.034)	0.092** (0.029)	0.087** (0.029)	0.115*** (0.026)	0.111*** (0.026)	0.093*** (0.023)	0.090*** (0.023)	0.090*** (0.020)	0.089*** (0.020)	0.092*** (0.016)	0.087*** (0.016)
DiD (m = 6) (standard error)	17988	17988	34523	34523	54895	54895	75400	75400	94239	94239	134220	134220
Clusters	0.007 (0.043)	0.005 (0.044)	0.030 (0.032)	0.024 (0.032)	0.081** (0.029)	0.076** (0.029)	0.088*** (0.025)	0.083** (0.025)	0.090*** (0.018)	0.083*** (0.018)	0.090*** (0.017)	0.083*** (0.017)
DiD (m = 7) (standard error)	13547	13547	33889	33889	48820	48820	64713	64713	106631	106631	124840	124840
Clusters	0.042 (0.041)	0.038 (0.041)	0.047 (0.034)	0.049 (0.035)	0.073* (0.031)	0.077* (0.031)	0.111*** (0.022)	0.106*** (0.022)	0.097*** (0.020)	0.092*** (0.020)	0.105*** (0.018)	0.101*** (0.018)
DiD (m = 8) (standard error)	16146	16146	28343	28343	44588	44588	80682	80682	96486	96486	116418	116418
Clusters	0.061 (0.037)	0.061 (0.037)	0.066* (0.032)	0.067* (0.033)	0.111*** (0.025)	0.104*** (0.025)	0.113*** (0.022)	0.105*** (0.022)	0.120*** (0.020)	0.114*** (0.020)	0.115*** (0.019)	0.108*** (0.019)
DiD (m = 9) (standard error)	14627	14627	27054	27054	59820	59820	75904	75904	91236	91236	109004	109004
Clusters	0.077 (0.054)	0.073 (0.055)	0.073* (0.030)	0.061* (0.031)	0.082** (0.027)	0.073** (0.027)	0.068** (0.024)	0.061* (0.024)	0.074*** (0.021)	0.067** (0.021)	0.062*** (0.019)	0.053** (0.019)
DiD (m = 10) (standard error)	11470	11470	46004	46004	58594	58594	71487	71487	89669	89669	103376	103376
Clusters	0.136*** (0.040)	0.128** (0.040)	0.120*** (0.031)	0.113*** (0.031)	0.124*** (0.028)	0.118*** (0.028)	0.115*** (0.025)	0.108*** (0.025)	0.126*** (0.023)	0.119*** (0.023)	0.111*** (0.020)	0.104*** (0.020)
DiD (m = 11) (standard error)	31291	31291	42888	42888	57806	57806	72536	72536	84184	84184	98162	98162
Clusters	0.042 (0.037)	0.041 (0.038)	0.083* (0.034)	0.081* (0.035)	0.094** (0.029)	0.092** (0.030)	0.109*** (0.026)	0.106*** (0.026)	0.105*** (0.023)	0.100*** (0.023)	0.100*** (0.020)	0.095*** (0.021)
DiD (m = 12) (standard error)	20237	20237	32345	32345	45873	45873	59357	59357	70335	70335	82529	82529
Clusters												

Notes: The outcome variable is equal to 1 if a treatment into STT has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 19: Estimated impact of reform 1986 on treatment probability in SPST for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD (m = 1) (standard error) Clusters	-0.082* (0.041) 46244	0.035 (0.028) 121136	0.040 (0.029) 121136	0.036 (0.025) 150376	0.022 (0.023) 175509	0.017 (0.021) 207822	0.039 (0.021) 207822	0.014 (0.019) 228551	0.034 (0.020) 228551			
DiD (m = 2) (standard error) Clusters	0.067 (0.055) 40400	0.072 (0.039) 74439	0.097* (0.040) 74439	0.094** (0.030) 131996	0.063* (0.027) 158923	0.010 (0.025) 178713	0.051* (0.025) 178713	0.023 (0.023) 202802	0.061** (0.023) 202802			
DiD (m = 3) (standard error) Clusters	-0.099 (0.064) 31326	-0.077 (0.047) 31326	0.002 (0.047) 59870	-0.069 (0.039) 91256	0.034 (0.033) 136119	-0.006 (0.029) 155721	0.032 (0.030) 155721	0.002 (0.026) 178023	0.036 (0.027) 178023			
DiD (m = 4) (standard error) Clusters	-0.018 (0.067) 22336	-0.121* (0.051) 52075	-0.099 (0.051) 52075	-0.067 (0.043) 75288	-0.072* (0.037) 97077	0.002 (0.030) 141999	0.024 (0.030) 141999	0.004 (0.027) 159056	0.027 (0.028) 159056			
DiD (m = 5) (standard error) Clusters	0.074 (0.068) 22093	0.113* (0.052) 40157	0.117* (0.053) 40157	0.209*** (0.043) 63525	0.148*** (0.039) 88085	0.101** (0.034) 106735	0.109** (0.034) 106735	0.106*** (0.028) 144723	0.122*** (0.029) 144723			
DiD (m = 6) (standard error) Clusters	0.129 (0.072) 18134	0.043 (0.054) 34761	0.027 (0.054) 34761	0.092 (0.048) 55335	0.082 (0.043) 76039	0.081* (0.037) 94972	0.076* (0.037) 94972	0.107*** (0.028) 135088	0.109*** (0.029) 135088			
DiD (m = 7) (standard error) Clusters	0.027 (0.071) 13602	0.060 (0.053) 34091	0.051 (0.054) 34091	0.118* (0.047) 49107	0.074 (0.041) 65100	0.131*** (0.029) 107165	0.127*** (0.030) 107165	0.108*** (0.027) 125435	0.105*** (0.027) 125435			
DiD (m = 8) (standard error) Clusters	0.190** (0.074) 16240	0.178** (0.055) 28489	0.180** (0.055) 28489	0.144** (0.048) 44862	0.152*** (0.036) 81146	0.155*** (0.032) 97020	0.143*** (0.032) 97020	0.146*** (0.028) 117050	0.136*** (0.029) 117050			
DiD (m = 9) (standard error) Clusters	0.133 (0.080) 14739	0.153 (0.059) 27221	0.054 (0.060) 27221	0.197*** (0.042) 60158	0.158*** (0.038) 76374	0.130*** (0.033) 91754	0.121*** (0.033) 91754	0.108*** (0.030) 109580	0.098** (0.030) 109580			
DiD (m = 10) (standard error) Clusters	0.014 (0.082) 11520	0.109* (0.046) 46177	0.100* (0.047) 46177	0.136*** (0.041) 58852	0.127*** (0.037) 71813	0.133*** (0.032) 90100	0.122*** (0.032) 90100	0.123*** (0.029) 103843	0.112*** (0.029) 103843			
DiD (m = 11) (standard error) Clusters	-0.027 (0.062) 31371	-0.039 (0.063) 31371	-0.005 (0.045) 43009	0.044 (0.039) 58005	0.026 (0.035) 72822	0.028 (0.031) 84488	0.023 (0.031) 84488	0.030 (0.028) 98524	0.021 (0.028) 98524			
DiD (m = 12) (standard error) Clusters	0.140* (0.065) 20375	0.117 (0.051) 32524	0.104* (0.052) 32524	0.068 (0.045) 46140	0.072 (0.040) 59725	0.067 (0.035) 70739	0.055 (0.035) 70739	0.060 (0.031) 82971	0.045 (0.032) 82971			

Notes: The outcome variable is equal to 1 if a treatment into SPST has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_2^D$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 20: Estimated impact of reform 1986 on treatment probability in RT for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error)	-0.034 (0.019)	-0.033 (0.019)	-0.003 (0.014)	-0.003 (0.015)	-0.010 (0.013)	-0.008 (0.014)	-0.032* (0.014)	-0.030* (0.014)	-0.034** (0.013)	-0.034** (0.013)	-0.032** (0.012)	-0.030* (0.012)
Clusters	45987	45987	120481	120481	149594	149594	174654	174654	206804	206804	227498	227498
DiD ( $m = 2$ ) (standard error)	0.025 (0.026)	0.031 (0.027)	-0.006 (0.020)	0.002 (0.020)	-0.008 (0.015)	-0.007 (0.016)	-0.029 (0.015)	-0.026 (0.015)	-0.028* (0.014)	-0.025 (0.014)	-0.018 (0.013)	-0.015 (0.013)
Clusters	40126	40126	73932	73932	131196	131196	157989	157989	177682	177682	201628	201628
DiD ( $m = 3$ ) (standard error)	0.086* (0.034)	0.092** (0.034)	0.015 (0.026)	0.023 (0.026)	-0.021 (0.021)	-0.012 (0.021)	-0.005 (0.019)	-0.004 (0.019)	0.004 (0.017)	0.005 (0.017)	0.015 (0.015)	0.016 (0.015)
Clusters	31096	31096	59434	59434	90549	90549	135158	135158	154683	154683	176878	176878
DiD ( $m = 4$ ) (standard error)	-0.021 (0.041)	-0.023 (0.042)	-0.027 (0.028)	-0.024 (0.029)	-0.021 (0.024)	-0.014 (0.024)	-0.018 (0.021)	-0.011 (0.021)	0.017 (0.018)	0.016 (0.018)	0.009 (0.017)	0.008 (0.017)
Clusters	22223	22223	51685	51685	74709	74709	96372	96372	141119	141119	158109	158109
DiD ( $m = 5$ ) (standard error)	0.029 (0.033)	0.033 (0.034)	0.022 (0.029)	0.022 (0.030)	0.025 (0.023)	0.024 (0.023)	0.023 (0.021)	0.023 (0.021)	0.013 (0.019)	0.017 (0.019)	0.030 (0.017)	0.027 (0.017)
Clusters	21949	21949	39904	39904	63047	63047	87375	87375	105965	105965	143881	143881
DiD ( $m = 6$ ) (standard error)	0.075 (0.040)	0.074 (0.041)	0.043 (0.031)	0.039 (0.032)	0.044 (0.026)	0.038 (0.027)	-0.010 (0.024)	-0.014 (0.024)	-0.005 (0.022)	-0.008 (0.022)	0.030 (0.016)	0.023 (0.017)
Clusters	18003	18003	34538	34538	54907	54907	75431	75431	94286	94286	134282	134282
DiD ( $m = 7$ ) (standard error)	0.056 (0.045)	0.059 (0.045)	0.005 (0.031)	-0.003 (0.032)	0.029 (0.027)	0.023 (0.027)	0.007 (0.026)	0.001 (0.026)	0.030 (0.019)	0.019 (0.019)	0.031 (0.017)	0.021 (0.017)
Clusters	13549	13549	33888	33888	48804	48804	64724	64724	106660	106660	124868	124868
DiD ( $m = 8$ ) (standard error)	0.093* (0.039)	0.087* (0.040)	0.059 (0.035)	0.051 (0.035)	0.061* (0.028)	0.054 (0.028)	0.042 (0.022)	0.026 (0.022)	0.038* (0.019)	0.024 (0.020)	0.049** (0.018)	0.037* (0.018)
Clusters	16143	16143	28343	28343	44567	44567	80705	80705	96511	96511	116458	116458
DiD ( $m = 9$ ) (standard error)	0.023 (0.043)	0.033 (0.044)	-0.007 (0.036)	-0.005 (0.036)	0.056* (0.024)	0.046 (0.025)	0.058** (0.022)	0.047* (0.022)	0.041* (0.020)	0.030 (0.020)	0.042* (0.018)	0.031 (0.018)
Clusters	14639	14639	27069	27069	59820	59820	75918	75918	91256	91256	109010	109010
DiD ( $m = 10$ ) (standard error)	0.064 (0.049)	0.069 (0.053)	0.052 (0.029)	0.039 (0.029)	0.038 (0.024)	0.028 (0.024)	0.028 (0.022)	0.018 (0.022)	0.025 (0.019)	0.015 (0.019)	0.029 (0.018)	0.019 (0.018)
Clusters	11465	11465	45982	45982	58553	58553	71462	71462	89649	89649	103358	103358
DiD ( $m = 11$ ) (standard error)	0.086 (0.044)	0.073 (0.044)	0.049 (0.032)	0.036 (0.032)	0.019 (0.023)	0.009 (0.023)	-0.000 (0.021)	-0.010 (0.021)	-0.001 (0.019)	-0.010 (0.020)	0.009 (0.017)	-0.002 (0.018)
Clusters	31304	31304	42886	42886	57769	57769	72498	72498	84148	84148	98130	98130
DiD ( $m = 12$ ) (standard error)	-0.051 (0.035)	-0.050 (0.035)	-0.030 (0.029)	-0.031 (0.029)	-0.037 (0.026)	-0.040 (0.026)	-0.032 (0.024)	-0.036 (0.024)	-0.011 (0.021)	-0.016 (0.021)	0.001 (0.019)	-0.004 (0.019)
Clusters	20222	20222	32310	32310	45833	45833	59314	59314	70303	70303	82489	82489

Notes: The outcome variable is equal to 1 if a treatment into RT has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.



Table 21: Estimated impact of reform 1986 on treatment probability in WS for males

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD (m = 1) (standard error) Clusters	-0.002 (0.008) 45925	-0.003 (0.008) 45925	-0.041*** (0.008) 120270	-0.041*** (0.008) 120270	-0.056*** (0.008) 149354	-0.055*** (0.008) 174303	-0.049*** (0.007) 206424	-0.048*** (0.007) 206424	-0.043*** (0.007) 227117	-0.043*** (0.007) 227117	-0.043*** (0.007) 227117	-0.041*** (0.007) 227117
DiD (m = 2) (standard error) Clusters	-0.006 (0.010) 40052	-0.003 (0.010) 40052	-0.008 (0.008) 73786	-0.006 (0.008) 73786	-0.019* (0.008) 130991	-0.039*** (0.008) 157685	-0.042*** (0.008) 177356	-0.040*** (0.008) 177356	-0.039*** (0.008) 201303	-0.042*** (0.008) 201303	-0.042*** (0.008) 201303	-0.039*** (0.008) 201303
DiD (m = 3) (standard error) Clusters	-0.002 (0.010) 31014	-0.002 (0.010) 31014	-0.011 (0.009) 59270	-0.011 (0.009) 59270	-0.024** (0.009) 90303	-0.023** (0.009) 134805	-0.028*** (0.008) 154293	-0.026** (0.008) 154293	-0.029*** (0.008) 176475	-0.029*** (0.008) 176475	-0.029*** (0.008) 176475	-0.027*** (0.008) 176475
DiD (m = 4) (standard error) Clusters	0.020 (0.014) 22161	0.021 (0.014) 22161	-0.018 (0.014) 51532	-0.015 (0.014) 51532	-0.018 (0.013) 74506	-0.012 (0.012) 96103	-0.010 (0.010) 140762	-0.006 (0.010) 140762	-0.006 (0.010) 157720	-0.006 (0.010) 157720	-0.006 (0.010) 157720	-0.003 (0.010) 157720
DiD (m = 5) (standard error) Clusters	0.035* (0.014) 21910	0.035* (0.014) 21910	0.004 (0.011) 39794	0.004 (0.011) 39794	-0.011 (0.009) 62885	-0.025** (0.010) 87147	-0.020* (0.010) 105684	-0.019 (0.009) 105684	-0.014 (0.009) 143550	-0.014 (0.009) 143550	-0.014 (0.009) 143550	-0.014 (0.009) 143550
DiD (m = 6) (standard error) Clusters	0.025 (0.016) 17960	0.021 (0.015) 17960	0.001 (0.014) 34446	-0.001 (0.014) 34446	-0.013 (0.013) 54756	-0.021 (0.012) 75202	-0.019 (0.011) 94010	-0.019 (0.011) 94010	-0.009 (0.009) 133985	-0.009 (0.009) 133985	-0.009 (0.009) 133985	-0.009 (0.009) 133985
DiD (m = 7) (standard error) Clusters	0.016 (0.012) 13516	0.017 (0.012) 13516	0.006 (0.012) 33788	0.006 (0.013) 33788	-0.005 (0.012) 48659	-0.017 (0.012) 64505	0.002 (0.008) 106370	0.001 (0.008) 106370	-0.002 (0.008) 124550	-0.002 (0.008) 124550	-0.002 (0.008) 124550	-0.003 (0.008) 124550
DiD (m = 8) (standard error) Clusters	-0.037* (0.018) 16115	-0.036* (0.018) 16115	-0.030* (0.014) 28271	-0.028 (0.015) 28271	-0.023 (0.012) 44441	-0.006 (0.009) 80462	-0.014 (0.009) 96232	-0.015 (0.009) 96232	-0.011 (0.008) 116137	-0.011 (0.008) 116137	-0.011 (0.008) 116137	-0.012 (0.009) 116137
DiD (m = 9) (standard error) Clusters	0.000 (0.020) 14603	0.001 (0.019) 14603	-0.008 (0.013) 26987	-0.008 (0.013) 26987	-0.011 (0.009) 59675	-0.003 (0.009) 75699	-0.003 (0.009) 90990	-0.004 (0.008) 90990	0.002 (0.008) 108708	0.002 (0.008) 108708	0.002 (0.008) 108708	0.002 (0.008) 108708
DiD (m = 10) (standard error) Clusters	0.020 (0.019) 11438	0.019 (0.018) 11438	0.025* (0.011) 45897	0.023 (0.012) 45897	0.008 (0.010) 58434	0.010 (0.010) 71288	0.011 (0.009) 89423	0.009 (0.009) 89423	0.015 (0.009) 103104	0.015 (0.009) 103104	0.015 (0.009) 103104	0.014 (0.009) 103104
DiD (m = 11) (standard error) Clusters	0.008 (0.010) 31258	0.008 (0.010) 31258	-0.005 (0.007) 42810	-0.006 (0.007) 42810	-0.004 (0.008) 57649	-0.001 (0.007) 72322	-0.005 (0.007) 83932	-0.006 (0.007) 83932	0.000 (0.007) 97886	0.000 (0.007) 97886	0.000 (0.007) 97886	-0.001 (0.007) 97886
DiD (m = 12) (standard error) Clusters	0.016 (0.010) 20176	0.015 (0.010) 20176	-0.002 (0.012) 32230	-0.002 (0.012) 32230	-0.021 (0.011) 45692	-0.022* (0.011) 59127	-0.019* (0.010) 70085	-0.021* (0.010) 70085	-0.020* (0.009) 82248	-0.020* (0.009) 82248	-0.020* (0.009) 82248	-0.022** (0.009) 82248

Notes: The outcome variable is equal to 1 if a treatment into WS has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 22: Estimated impact of reform 1986 on treatment probability in PF for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.		
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	
Controls													
DiD ( $m = 1$ ) (standard error) Clusters	-0.011 (0.006) 19790	-0.011 (0.006) 19790	-0.030*** (0.007) 66393	-0.031*** (0.008) 66393	-0.029*** (0.006) 84467	-0.029*** (0.006) 84467	-0.029*** (0.006) 102707	-0.029*** (0.006) 102707	-0.033*** (0.005) 131814	-0.032*** (0.005) 131814	-0.029*** (0.005) 147936	-0.029*** (0.005) 147936	-0.029*** (0.005) 147936
DiD ( $m = 2$ ) (standard error) Clusters	-0.032** (0.012) 24752	-0.031** (0.009) 41384	-0.031*** (0.009) 41384	-0.029*** (0.007) 79083	-0.029*** (0.007) 79083	-0.029*** (0.007) 100279	-0.034*** (0.007) 100279	-0.031*** (0.006) 115004	-0.031*** (0.006) 115004	-0.026*** (0.006) 135940	-0.026*** (0.006) 135940	-0.026*** (0.006) 135940	-0.026*** (0.006) 135940
DiD ( $m = 3$ ) (standard error) Clusters	-0.001 (0.011) 22306	-0.001 (0.011) 22306	-0.008 (0.007) 39626	-0.008 (0.007) 39626	-0.017 (0.009) 58989	-0.017 (0.009) 58989	-0.022** (0.007) 92484	-0.019** (0.006) 106955	-0.019** (0.006) 106955	-0.021*** (0.006) 125824	-0.021*** (0.006) 125824	-0.020*** (0.006) 125824	-0.020*** (0.006) 125824
DiD ( $m = 4$ ) (standard error) Clusters	-0.022 (0.014) 16466	-0.021 (0.013) 16466	-0.041*** (0.010) 41000	-0.041*** (0.010) 41000	-0.038*** (0.009) 55226	-0.037*** (0.009) 55226	-0.036*** (0.008) 68364	-0.030*** (0.007) 105387	-0.030*** (0.007) 105387	-0.028*** (0.006) 117992	-0.028*** (0.006) 117992	-0.028*** (0.006) 117992	-0.028*** (0.006) 117992
DiD ( $m = 5$ ) (standard error) Clusters	-0.032* (0.013) 19303	-0.032* (0.013) 19303	-0.030*** (0.009) 32938	-0.030*** (0.009) 32938	-0.029*** (0.009) 51253	-0.029*** (0.009) 51253	-0.037*** (0.008) 69284	-0.037*** (0.008) 69284	-0.038*** (0.007) 80788	-0.038*** (0.007) 80788	-0.025*** (0.007) 111275	-0.025*** (0.007) 111275	-0.025*** (0.007) 111275
DiD ( $m = 6$ ) (standard error) Clusters	-0.032 (0.018) 15473	-0.027 (0.017) 15473	-0.020 (0.011) 28176	-0.019 (0.011) 28176	-0.028** (0.010) 44508	-0.027** (0.010) 44508	-0.036*** (0.009) 59881	-0.035*** (0.008) 59881	-0.035*** (0.008) 71423	-0.035*** (0.008) 71423	-0.022*** (0.006) 102608	-0.022*** (0.006) 102608	-0.021*** (0.006) 102608
DiD ( $m = 7$ ) (standard error) Clusters	-0.007 (0.007) 9856	-0.008 (0.008) 9856	-0.025* (0.012) 27620	-0.025* (0.013) 27620	-0.031** (0.011) 38029	-0.031** (0.011) 38029	-0.032** (0.010) 48557	-0.032** (0.010) 48557	-0.015* (0.007) 83187	-0.015* (0.007) 83187	-0.012 (0.007) 92556	-0.012 (0.007) 92556	-0.012 (0.007) 92556
DiD ( $m = 8$ ) (standard error) Clusters	-0.018 (0.014) 13182	-0.022 (0.015) 13182	-0.005 (0.012) 21636	-0.006 (0.012) 21636	-0.016 (0.011) 34442	-0.016 (0.011) 34442	-0.029*** (0.008) 64871	-0.029*** (0.008) 64871	-0.029*** (0.007) 74287	-0.029*** (0.007) 74287	-0.025*** (0.006) 87687	-0.025*** (0.006) 87687	-0.026*** (0.007) 87687
DiD ( $m = 9$ ) (standard error) Clusters	-0.035* (0.015) 11630	-0.035* (0.015) 11630	-0.025 (0.013) 20395	-0.026 (0.013) 20395	-0.030*** (0.008) 48368	-0.031*** (0.009) 48368	-0.029*** (0.007) 59931	-0.030*** (0.007) 59931	-0.023*** (0.007) 70007	-0.023*** (0.007) 70007	-0.020** (0.006) 83108	-0.020** (0.006) 83108	-0.020** (0.006) 83108
DiD ( $m = 10$ ) (standard error) Clusters	-0.001 (0.019) 7823	-0.003 (0.020) 7823	0.006 (0.009) 38332	0.005 (0.009) 38332	0.001 (0.008) 46188	-0.000 (0.008) 46188	-0.005 (0.008) 54473	-0.005 (0.007) 69459	-0.005 (0.007) 69459	-0.004 (0.007) 79469	-0.004 (0.007) 79469	-0.004 (0.007) 79469	-0.004 (0.007) 79469
DiD ( $m = 11$ ) (standard error) Clusters	-0.009 (0.014) 26615	-0.008 (0.013) 26615	-0.008 (0.009) 33571	-0.007 (0.009) 33571	-0.013 (0.008) 44639	-0.011 (0.008) 44639	-0.025** (0.008) 55914	-0.023** (0.008) 55914	-0.021** (0.007) 64290	-0.019** (0.007) 64290	-0.016* (0.007) 76120	-0.016* (0.007) 76120	-0.015* (0.007) 76120
DiD ( $m = 12$ ) (standard error) Clusters	-0.015 (0.008) 15103	-0.016 (0.009) 15103	-0.025** (0.010) 22831	-0.024* (0.009) 22831	-0.037*** (0.011) 32855	-0.037*** (0.011) 32855	-0.045*** (0.010) 43708	-0.045*** (0.010) 43708	-0.045*** (0.009) 52201	-0.045*** (0.009) 52201	-0.047*** (0.008) 62465	-0.047*** (0.008) 62465	-0.046*** (0.008) 62465

Notes: The outcome variable is equal to 1 if a treatment into PF has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 23: Estimated impact of reform 1986 on treatment probability in STT for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error) Clusters	-0.003 (0.015) 19802	-0.004 (0.016) 19802	0.027* (0.012) 66431	0.026* (0.010) 84520	0.027** (0.010) 84520	0.026* (0.010) 84520	0.028** (0.009) 102783	0.026** (0.010) 102783	0.024** (0.008) 131905	0.023** (0.009) 131905	0.025** (0.008) 148027	0.024** (0.008) 148027
DiD ( $m = 2$ ) (standard error) Clusters	0.019 (0.017) 24759	0.020 (0.017) 24759	0.017 (0.014) 41411	0.026* (0.013) 79163	0.026* (0.013) 79163	0.026* (0.013) 79163	0.009 (0.012) 100383	0.006 (0.012) 100383	0.015 (0.011) 115121	0.013 (0.011) 115121	0.020* (0.010) 136102	0.019 (0.010) 136102
DiD ( $m = 3$ ) (standard error) Clusters	-0.015 (0.017) 22322	-0.016 (0.018) 22322	0.016 (0.017) 39680	0.016 (0.016) 59078	-0.006 (0.016) 59078	0.016 (0.016) 59078	0.014 (0.014) 92625	0.012 (0.014) 92625	0.012 (0.012) 107105	0.011 (0.012) 107105	0.019 (0.011) 125987	0.017 (0.011) 125987
DiD ( $m = 4$ ) (standard error) Clusters	0.007 (0.022) 16480	0.011 (0.022) 16480	-0.004 (0.019) 41067	-0.003 (0.019) 41067	0.011 (0.016) 55309	0.013 (0.016) 55309	0.014 (0.014) 68466	0.015 (0.014) 68466	0.021 (0.012) 105529	0.020 (0.012) 105529	0.022* (0.011) 118150	0.020 (0.011) 118150
DiD ( $m = 5$ ) (standard error) Clusters	0.001 (0.020) 19315	0.001 (0.021) 19315	0.019 (0.019) 32982	0.015 (0.019) 32982	0.050** (0.018) 51352	0.047** (0.018) 51352	0.029 (0.016) 69429	0.027 (0.016) 69429	0.025 (0.015) 80951	0.024 (0.015) 80951	0.036** (0.012) 111468	0.032** (0.012) 111468
DiD ( $m = 6$ ) (standard error) Clusters	0.002 (0.026) 15499	0.001 (0.026) 15499	-0.021 (0.023) 28231	-0.021 (0.023) 28231	0.036 (0.022) 44629	0.034 (0.022) 44629	0.036 (0.020) 60056	0.036 (0.020) 60056	0.034 (0.017) 71613	0.034 (0.018) 71613	0.039** (0.013) 102818	0.039** (0.013) 102818
DiD ( $m = 7$ ) (standard error) Clusters	0.040 (0.033) 9871	0.040 (0.033) 9871	0.047 (0.027) 27688	0.047 (0.027) 27688	0.055* (0.024) 38136	0.056* (0.024) 38136	0.032 (0.021) 48686	0.031 (0.021) 48686	0.046** (0.015) 83353	0.046** (0.015) 83353	0.044** (0.014) 92731	0.045** (0.014) 92731
DiD ( $m = 8$ ) (standard error) Clusters	0.008 (0.038) 13207	0.007 (0.039) 13207	0.039 (0.030) 21687	0.038 (0.030) 21687	0.024 (0.024) 34536	0.024 (0.024) 34536	0.026 (0.019) 65019	0.027 (0.019) 65019	0.026 (0.016) 74453	0.025 (0.017) 74453	0.029* (0.015) 87883	0.030* (0.015) 87883
DiD ( $m = 9$ ) (standard error) Clusters	0.028 (0.034) 11654	0.033 (0.034) 11654	-0.001 (0.026) 20439	-0.002 (0.027) 20439	0.007 (0.019) 48456	0.005 (0.020) 48456	0.016 (0.018) 60064	0.017 (0.018) 60064	0.026 (0.016) 70165	0.026 (0.016) 70165	0.022 (0.015) 83290	0.021 (0.015) 83290
DiD ( $m = 10$ ) (standard error) Clusters	0.013 (0.037) 7833	0.010 (0.037) 7833	0.054* (0.021) 38397	0.050* (0.021) 38397	0.065** (0.020) 46281	0.062** (0.020) 46281	0.068** (0.018) 54586	0.067** (0.018) 54586	0.067** (0.016) 69598	0.067** (0.016) 69598	0.063** (0.015) 79628	0.063** (0.015) 79628
DiD ( $m = 11$ ) (standard error) Clusters	0.009 (0.030) 26624	0.012 (0.030) 26624	0.020 (0.023) 33604	0.018 (0.023) 33604	0.026 (0.020) 44714	0.027 (0.021) 44714	0.025 (0.018) 56008	0.027 (0.018) 56008	0.024 (0.017) 64412	0.026 (0.017) 64412	0.019 (0.015) 76264	0.021 (0.015) 76264
DiD ( $m = 12$ ) (standard error) Clusters	0.061* (0.030) 15132	0.061* (0.030) 15132	0.023 (0.026) 22885	0.026 (0.026) 22885	0.058** (0.022) 32934	0.060** (0.022) 32934	0.020 (0.020) 43828	0.022 (0.020) 43828	0.041* (0.018) 52336	0.043* (0.018) 52336	0.045** (0.016) 62620	0.045** (0.016) 62620

Notes: The outcome variable is equal to 1 if a treatment into STT has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 24: Estimated impact of reform 1986 on treatment probability in SPST for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error) Clusters	0.029 (0.039) 19883	0.024 (0.040) 19883	0.105*** (0.030) 66816	0.116*** (0.031) 66816	0.088*** (0.026) 85014	0.099*** (0.027) 85014	0.071** (0.023) 103379	0.080*** (0.023) 103379	0.066** (0.021) 132684	0.076*** (0.021) 132684	0.048* (0.019) 148845	0.048* (0.019) 148845
DiD ( $m = 2$ ) (standard error) Clusters	-0.034 (0.047) 24927	-0.024 (0.048) 24927	-0.018 (0.033) 41639	-0.013 (0.033) 41639	0.123*** (0.029) 79712	0.134*** (0.030) 79712	0.072* (0.028) 101185	0.085** (0.029) 101185	0.070** (0.025) 115981	0.082** (0.025) 115981	0.067** (0.023) 137072	0.080*** (0.023) 137072
DiD ( $m = 3$ ) (standard error) Clusters	0.125* (0.052) 22512	0.127* (0.053) 22512	0.106** (0.038) 39964	0.116** (0.039) 39964	0.109** (0.037) 59644	0.114** (0.038) 59644	0.187*** (0.032) 93453	0.212*** (0.032) 93453	0.160*** (0.028) 107993	0.181*** (0.028) 107993	0.132*** (0.024) 126936	0.150*** (0.024) 126936
DiD ( $m = 4$ ) (standard error) Clusters	0.076 (0.044) 16537	0.085 (0.045) 16537	0.050 (0.041) 41372	0.051 (0.041) 41372	0.063 (0.035) 55724	0.070* (0.035) 55724	0.051 (0.031) 68972	0.055 (0.031) 68972	0.081** (0.025) 106219	0.095*** (0.025) 106219	0.067** (0.023) 118868	0.080*** (0.023) 118868
DiD ( $m = 5$ ) (standard error) Clusters	-0.136** (0.052) 19447	-0.150** (0.053) 19447	-0.085* (0.038) 33172	-0.091* (0.039) 33172	-0.018 (0.035) 51727	-0.019 (0.036) 51727	-0.010 (0.032) 69991	-0.010 (0.033) 69991	-0.015 (0.029) 81546	-0.014 (0.029) 81546	0.015 (0.024) 112161	0.026 (0.024) 112161
DiD ( $m = 6$ ) (standard error) Clusters	0.074 (0.059) 15628	0.102 (0.061) 15628	-0.037 (0.043) 28422	-0.024 (0.043) 28422	0.046 (0.046) 45031	0.051 (0.043) 45031	0.089* (0.038) 60615	0.093* (0.038) 60615	0.094** (0.033) 72209	0.097** (0.033) 72209	0.099*** (0.025) 103475	0.112*** (0.025) 103475
DiD ( $m = 7$ ) (standard error) Clusters	0.087 (0.056) 9899	0.089 (0.058) 9899	0.178*** (0.053) 27913	0.181*** (0.053) 27913	0.133** (0.044) 38437	0.131** (0.045) 38437	0.080* (0.039) 49079	0.072 (0.039) 49079	0.105*** (0.028) 83888	0.111*** (0.029) 83888	0.099*** (0.026) 93315	0.107*** (0.026) 93315
DiD ( $m = 8$ ) (standard error) Clusters	-0.057 (0.061) 13275	-0.057 (0.064) 13275	-0.056 (0.046) 21776	-0.064 (0.047) 21776	0.016 (0.042) 34753	0.008 (0.042) 34753	0.018 (0.030) 65374	0.019 (0.031) 65374	0.022 (0.027) 74839	0.021 (0.027) 74839	0.022 (0.024) 88319	0.024 (0.024) 88319
DiD ( $m = 9$ ) (standard error) Clusters	-0.015 (0.064) 11724	-0.000 (0.066) 11724	0.026 (0.047) 20547	0.026 (0.048) 20547	0.067 (0.035) 48750	0.071* (0.036) 48750	0.009 (0.033) 60466	0.019 (0.034) 60466	0.009 (0.029) 70598	0.019 (0.030) 70598	0.019 (0.026) 83756	0.027 (0.026) 83756
DiD ( $m = 10$ ) (standard error) Clusters	-0.051 (0.058) 7855	-0.068 (0.059) 7855	0.090* (0.043) 38566	0.090* (0.044) 38566	0.101** (0.034) 46465	0.105** (0.035) 46465	0.111*** (0.031) 54825	0.114*** (0.031) 54825	0.087** (0.028) 69932	0.091** (0.028) 69932	0.082*** (0.024) 79977	0.084*** (0.024) 79977
DiD ( $m = 11$ ) (standard error) Clusters	0.009 (0.045) 26697	0.013 (0.045) 26697	-0.014 (0.036) 33690	-0.014 (0.037) 33690	0.015 (0.035) 44892	0.025 (0.035) 44892	0.010 (0.031) 56297	0.024 (0.032) 56297	0.003 (0.027) 64697	0.013 (0.027) 64697	0.009 (0.024) 76584	0.020 (0.024) 76584
DiD ( $m = 12$ ) (standard error) Clusters	0.097 (0.057) 15233	0.108 (0.058) 15233	0.120** (0.043) 23012	0.132** (0.044) 23012	0.074 (0.042) 33174	0.078 (0.042) 33174	0.061 (0.037) 44157	0.061 (0.037) 44157	0.044 (0.032) 52699	0.046 (0.032) 52699	0.049 (0.028) 63013	0.047 (0.028) 63013

Notes: The outcome variable is equal to 1 if a treatment into SPST has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_2^D$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 25: Estimated impact of reform 1986 on treatment probability in RT for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Controls												
DiD ( $m = 1$ ) (standard error) Clusters	-0.018 (0.020) 19816	-0.018 (0.013) 66465	-0.018 (0.013) 66465	-0.023 (0.013) 66465	-0.026* (0.012) 84575	-0.030* (0.013) 79184	-0.014 (0.012) 102857	-0.014 (0.012) 102857	-0.007 (0.010) 131997	-0.008 (0.010) 131997	-0.002 (0.009) 148118	-0.002 (0.009) 148118
DiD ( $m = 2$ ) (standard error) Clusters	0.034 (0.026) 24794	0.039 (0.018) 41441	0.029 (0.018) 41441	0.033 (0.018) 41441	0.020 (0.013) 79184	0.019 (0.013) 79184	0.007 (0.012) 100416	0.006 (0.012) 100416	0.003 (0.011) 115158	0.003 (0.011) 115158	0.004 (0.010) 136118	0.004 (0.010) 136118
DiD ( $m = 3$ ) (standard error) Clusters	0.036 (0.024) 22338	0.039 (0.017) 39680	-0.007 (0.017) 39680	-0.007 (0.017) 39680	-0.001 (0.016) 59083	0.000 (0.016) 59083	0.026 (0.014) 92639	0.027 (0.015) 92639	0.026* (0.013) 107119	0.026* (0.013) 107119	0.016 (0.011) 125994	0.016 (0.011) 125994
DiD ( $m = 4$ ) (standard error) Clusters	0.017 (0.024) 16483	0.019 (0.026) 16483	-0.002 (0.017) 41049	-0.002 (0.017) 41049	-0.014 (0.015) 55303	-0.013 (0.016) 55303	-0.002 (0.014) 68459	-0.001 (0.014) 68459	-0.009 (0.011) 105517	-0.009 (0.011) 105517	0.001 (0.010) 118133	0.000 (0.010) 118133
DiD ( $m = 5$ ) (standard error) Clusters	-0.017 (0.027) 19332	-0.023 (0.028) 32993	0.004 (0.020) 32993	0.002 (0.020) 32993	0.004 (0.017) 51340	0.005 (0.017) 51340	0.015 (0.015) 69406	0.015 (0.015) 69406	0.019 (0.014) 80918	0.019 (0.014) 80918	0.022* (0.011) 111424	0.020 (0.011) 111424
DiD ( $m = 6$ ) (standard error) Clusters	-0.066* (0.033) 15505	-0.063 (0.034) 15505	-0.049* (0.023) 28237	-0.048* (0.023) 28237	-0.060** (0.020) 44599	-0.061** (0.020) 44599	-0.035* (0.017) 59997	-0.036* (0.017) 59997	-0.019 (0.015) 71550	-0.020 (0.015) 71550	-0.006 (0.011) 102739	-0.006 (0.011) 102739
DiD ( $m = 7$ ) (standard error) Clusters	0.008 (0.035) 9875	0.011 (0.037) 9875	-0.004 (0.023) 27667	-0.002 (0.023) 27667	-0.003 (0.020) 38097	-0.003 (0.020) 38097	0.011 (0.018) 48651	0.010 (0.018) 48651	0.011 (0.013) 83312	0.011 (0.013) 83312	0.005 (0.012) 92693	0.005 (0.012) 92693
DiD ( $m = 8$ ) (standard error) Clusters	0.013 (0.034) 13205	0.009 (0.035) 13205	-0.010 (0.028) 21683	-0.009 (0.028) 21683	-0.029 (0.021) 34506	-0.030 (0.021) 34506	0.013 (0.016) 64975	0.009 (0.016) 64975	0.007 (0.013) 74394	0.004 (0.014) 74394	0.007 (0.012) 87813	0.005 (0.012) 87813
DiD ( $m = 9$ ) (standard error) Clusters	0.057 (0.034) 11647	0.063 (0.035) 11647	0.023 (0.023) 20422	0.020 (0.023) 20422	0.014 (0.016) 48435	0.012 (0.016) 48435	0.013 (0.015) 60032	0.012 (0.015) 60032	0.008 (0.014) 70118	0.006 (0.014) 70118	0.001 (0.012) 83231	-0.001 (0.012) 83231
DiD ( $m = 10$ ) (standard error) Clusters	0.014 (0.033) 7831	0.017 (0.034) 7831	0.007 (0.020) 38371	0.003 (0.020) 38371	0.009 (0.017) 46248	0.005 (0.017) 46248	-0.001 (0.016) 54549	-0.005 (0.016) 54549	0.004 (0.014) 69558	0.002 (0.014) 69558	0.005 (0.012) 79575	0.003 (0.012) 79575
DiD ( $m = 11$ ) (standard error) Clusters	-0.024 (0.025) 26619	-0.023 (0.026) 26619	-0.011 (0.023) 33588	-0.012 (0.024) 33588	0.019 (0.017) 44683	0.019 (0.018) 44683	0.003 (0.016) 55984	0.003 (0.016) 55984	0.005 (0.014) 64368	0.005 (0.014) 64368	0.005 (0.013) 76218	0.005 (0.013) 76218
DiD ( $m = 12$ ) (standard error) Clusters	0.036 (0.035) 15139	0.041 (0.036) 15139	-0.000 (0.024) 32879	0.004 (0.024) 32879	-0.011 (0.022) 32927	-0.009 (0.022) 32927	0.013 (0.019) 43810	0.015 (0.020) 43810	0.010 (0.017) 52310	0.012 (0.017) 52310	0.016 (0.014) 62575	0.017 (0.014) 62575

Notes: The outcome variable is equal to 1 if a treatment into RT has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* indicate statistical significance at 1%, 5%, and 10% level, respectively.

Table 26: Estimated impact of reform 1986 on treatment probability in WS for females

Estimation sample	Jan./Dec.		Jan.-Feb./Nov.-Dec.		Jan.-March/Oct.-Dec.		Jan.-Apr./Sep.-Dec.		Jan.-May/Aug.-Dec.		Jan.-June/July-Dec.		
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	
DiD (m = 1) (standard error) Clusters	-0.004 (0.011) 19795	-0.003 (0.011) 19795	-0.013* (0.007) 66386	-0.013 (0.007) 66386	-0.017** (0.006) 84466	-0.017** (0.006) 84466	-0.018*** (0.005) 102689	-0.018*** (0.005) 102689	-0.014** (0.005) 131794	-0.014** (0.005) 131794	-0.012** (0.004) 147909	-0.012** (0.004) 147909	-0.012** (0.004) 147909
DiD (m = 2) (standard error) Clusters	0.012 (0.008) 24743	0.010 (0.008) 24743	-0.000 (0.006) 41368	-0.001 (0.006) 41368	-0.002 (0.004) 79061	-0.002 (0.004) 79061	-0.007 (0.004) 100237	-0.007 (0.004) 100237	-0.007 (0.004) 114960	-0.007 (0.004) 114960	-0.006 (0.004) 135895	-0.006 (0.004) 135895	-0.006 (0.004) 135895
DiD (m = 3) (standard error) Clusters	0.008 (0.009) 22302	0.008 (0.009) 22302	0.001 (0.007) 39626	0.000 (0.008) 39626	-0.007 (0.006) 58968	-0.007 (0.006) 58968	-0.004 (0.006) 92466	-0.004 (0.006) 92466	0.000 (0.005) 106935	-0.001 (0.005) 106935	0.000 (0.005) 125796	0.000 (0.005) 125796	0.000 (0.005) 125796
DiD (m = 4) (standard error) Clusters	0.015 (0.011) 16461	0.015 (0.011) 16461	-0.006 (0.008) 40987	-0.006 (0.008) 40987	-0.007 (0.007) 55210	-0.007 (0.007) 55210	-0.006 (0.006) 68346	-0.006 (0.006) 68346	-0.002 (0.005) 105359	-0.002 (0.005) 105359	-0.005 (0.005) 117961	-0.005 (0.005) 117961	-0.005 (0.005) 117961
DiD (m = 5) (standard error) Clusters	0.021 (0.011) 19297	0.018 (0.011) 19297	0.007 (0.007) 32931	0.007 (0.007) 32931	0.001 (0.006) 51238	0.001 (0.006) 51238	-0.007 (0.006) 69255	-0.007 (0.006) 69255	-0.009 (0.005) 80757	-0.010 (0.005) 80757	-0.004 (0.005) 111242	-0.004 (0.005) 111242	-0.004 (0.005) 111242
DiD (m = 6) (standard error) Clusters	0.016 (0.010) 15471	0.018 (0.010) 15471	0.012 (0.006) 28171	0.012 (0.006) 28171	0.003 (0.007) 44495	0.003 (0.007) 44495	0.002 (0.006) 59858	0.002 (0.006) 59858	0.006 (0.006) 71395	0.006 (0.006) 71395	0.008 (0.005) 102572	0.008 (0.005) 102572	0.007 (0.005) 102572
DiD (m = 7) (standard error) Clusters	0.000 (.) 9855	0.000 (.) 9855	-0.011 (0.007) 27607	-0.011 (0.007) 27607	-0.021** (0.008) 38016	-0.021** (0.008) 38016	-0.017* (0.007) 48537	-0.017* (0.007) 48537	-0.002 (0.005) 83160	-0.001 (0.005) 83160	-0.002 (0.005) 92529	-0.002 (0.005) 92529	-0.001 (0.005) 92529
DiD (m = 8) (standard error) Clusters	0.000 (.) 13175	0.000 (.) 13175	-0.004 (0.004) 21625	-0.004 (0.004) 21625	-0.005 (0.005) 34425	-0.005 (0.005) 34425	-0.005 (0.004) 64836	-0.005 (0.004) 64836	-0.007 (0.005) 74253	-0.007 (0.005) 74253	-0.001 (0.005) 87651	-0.001 (0.005) 87651	-0.001 (0.005) 87651
DiD (m = 9) (standard error) Clusters	0.001 (0.012) 11627	0.003 (0.013) 11627	-0.012 (0.010) 20390	-0.012 (0.010) 20390	-0.003 (0.004) 48347	-0.004 (0.004) 48347	-0.002 (0.005) 59909	-0.002 (0.005) 59909	-0.003 (0.004) 69980	-0.002 (0.004) 69980	-0.004 (0.004) 83078	-0.004 (0.004) 83078	-0.003 (0.004) 83078
DiD (m = 10) (standard error) Clusters	0.010 (0.010) 7820	0.011 (0.011) 7820	0.003 (0.007) 38321	0.002 (0.007) 38321	0.011 (0.007) 46178	0.010 (0.007) 46178	0.008 (0.006) 54455	0.008 (0.006) 54455	0.003 (0.005) 69426	0.003 (0.004) 69426	0.003 (0.004) 79433	0.003 (0.004) 79433	0.003 (0.004) 79433
DiD (m = 11) (standard error) Clusters	0.008 (0.010) 26604	0.007 (0.009) 26604	0.004 (0.005) 33556	0.003 (0.005) 33556	0.002 (0.003) 44618	0.001 (0.003) 44618	-0.003 (0.004) 55885	-0.003 (0.004) 55885	-0.002 (0.004) 64259	-0.003 (0.004) 64259	-0.001 (0.004) 76081	-0.001 (0.004) 76081	-0.001 (0.004) 76081
DiD (m = 12) (standard error) Clusters	-0.012* (0.006) 15100	-0.012* (0.006) 15100	-0.018* (0.008) 22826	-0.019* (0.008) 22826	-0.018** (0.007) 32842	-0.018** (0.007) 32842	-0.014* (0.006) 43683	-0.014* (0.006) 43683	-0.013* (0.006) 52173	-0.013* (0.006) 52173	-0.013** (0.005) 62430	-0.013** (0.005) 62430	-0.012* (0.005) 62430

Notes: The outcome variable is equal to 1 if a treatment into WS has started and is 0 in case of no treatment. DiD refers to the estimator of  $\beta_3^P$  from equation (1) and measures the impact of the reform on the probability of treatment. Each regression is estimated according to equation (1) and includes the two indicator variables  $R$  and  $Z$ , as well as the vector of calendar month dummies. The control variables correspond to the vector of individual characteristics (see text). Standard errors are clustered at individual level and reported in brackets. The number of clusters is reported too. \*\*\*, \*\*, \* and \* indicate statistical significance at 1%, 5%, and 10% level, respectively.