

# DOES IT PAY TO BE A WOMAN?

## LABOUR MARKET EFFECTS OF MATERNITY-RELATED JOB PROTECTION AND REPLACEMENT INCOMES \*

Beatrice Scheubel<sup>†</sup>

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### Abstract

It is often considered to be unwise to hire a woman in childbearing age for a highly demanding job because of the pregnancy risk. Women in childbearing age are potentially covered by maternity-related welfare politics, which consist of both job protection laws and a replacement income entitlement. While the effect of maternity leave legislation on mother's labour market outcomes has been extensively analysed, the employers' reaction to these potential costs is less well-understood. This paper tries to fill this gap by analysing the labour market effects of maternity-related job protection and replacement income measures without restricting the analysis to mothers. I exploit exogenous discrete changes in German maternity leave legislation, which constitute a quasi-experimental setting, to use a difference-in-differences approach for identification on German Socio-Economic Panel data and German Microcensus data. An extension in the job protection and pay period lowers the probability of finding employment by around 3% for women without a university degree. The total effect of extending both pay and protection period from 10 to 18 months amounts to a 6-7% reduction in the probability of finding a job. Women with a university degree are not affected. Only the combination of both measures worsens the labour market position of women in childbearing age. I do not find that women have to accept a wage penalty, so employers mainly react with restrictive hiring.

**Keywords:** maternity leave legislation, gender pay gap, education, hiring decision, unemployment

**JEL-Codes:** J64, J23, J16, J31, K31

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<sup>†</sup>Center for Economic Studies, University of Munich, Schackstr. 4, 80539 Munich, Germany; email: scheubel@lmu.de.

# 1 Introduction

Maternity leave legislation has long been considered one of the achievements of modern safety protection regulations. Without doubt, maternity pay and job protection shortly after giving birth are beneficial for the recovery of the mother. It is, however, not as clear whether the increasing extension of both pay and protection, which is promoted by policy makers in many countries and just recently in the European Union, brings about solely beneficial effects. After all, generous pay and generous job protection rules also provide incentives to leave the labour market on a replacement income. This does not only imply costs for both the employer and the government, but also for the mother, who might find labour market re-entry more difficult after a long absence. Even more so, the mere possibility of having a child and taking leave hampers the labour market prospects of women in childbearing age. In contrast to previous research, this paper focuses on the latter aspect.

Recent research on labour market effects of maternity leave legislation has mainly focused on the labour supply of mothers (e. g. Spiess and Wrohlich 2006; Dearing et al. 2007; Schönberg and Ludsteck, 2007).<sup>1</sup> Job protection laws and the policy of providing a replacement income do, however, not only affect labour supply, but also labour demand for the group affected by the respective law. Maternity leave legislation is an example of a job protection law in combination with a replacement income policy, which affects the labour demand for a particular group: female employees. To an employer who decides about hiring a new employee, every woman is a potential mother.

The employer has to take into account expected future costs in case the employee takes leave following the birth of a child. Maternity leave legislation normally ensures a replacement income for the new mother, but also guarantees job protection for the period of leave in most countries. This increases lay-off costs. Besides the pecuniary costs of maternity pay,<sup>2</sup> the employer may have to incur additional implicit costs. These include a lower productivity after the employee returns, because her human capital has depreciated (Datta Gupta and Smith 2000; Görlich and de Grip 2007), or the additional training that has to be invested in a substitute employee (Ruhm 1998; Ondrich et al. 2002). This can be enhanced by the uncertainty about when the absent employee will return and whether she will return at all (Waldfogel 1998).<sup>3</sup>

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<sup>1</sup>Ruhm (1998) is an exception to this.

<sup>2</sup>In Germany, the employer has to pay the main fraction of the benefits, which a mother receives for the 2 months following the birth of a child, and which she may receive during the six weeks before childbirth. Maternity pay is related to the woman's salary. This is similar to employers' contribution to sick pay.

<sup>3</sup>The period of actual leave-taking strongly depends on the length of the statutory job protection period, refer e. g. to Ondrich et al. (1996), Gottschall and Bird (2003), and Berger and Waldfogel (2004).

The German example is especially well-suited for analysing the effect of job-protected leave on employment opportunities, as the job-protected leave period of 3 years in Germany is among the longest in the world. The law obliges the employer to offer a mother the same or an equivalent job after she returns from maternity leave. This issue is of international relevance. The job protection period related to maternity leave was extended in many other countries recently, such as Canada and Denmark. It has also been extended in the United States in California. While policy makers often only consider the direct effects on mothers and children, second order effects on the labour market position of women in general, which may be of a significant magnitude, are ignored. This paper draws attention to these effects and shows that these rules are of particular relevance for women's labour market position. I show that every woman in childbearing age is adversely affected by changes in maternity leave legislation, irrespective of whether she will have a child or not. Maternity leave legislation raises expected costs for the employer if he hires a woman in childbearing age. As a result, every woman in childbearing age has to pay a risk premium.

As any change to the statutory, job-protected leave period can be considered an exogenous change in lay-off costs, this risk premium can be expected to take either the form of reduced wages or the form of a reduced probability of finding employment or both. The behavioural responses of mothers to changes in maternity leave legislation are well-analysed and should determine an employer's assessment of the costs a potentially pregnant woman would imply for him. First, increases of maternity pay and maternity benefits<sup>4</sup> can foster mothers' labour market attachment and speed up their return to work. The income effect after maternity benefits are discontinued encourages women to seek employment to make up for the loss in income (e. g. Ondrich et al. 1996; Schönberg and Ludsteck 2007). Job protection is meant to enable mothers' return to work if they wish to do so, but the effects should be rather adverse. Mothers are tempted to stay home for the whole protection period (Gottschall and Bird 2003), which makes the pregnancy of an employee more costly for the employer. Anecdotal evidence suggests that women do return to their jobs, but often accept a job, which is not of equal status as before or they are fired for some other reason shortly after returning.

It is, however, not clear, whether the effects of maternity benefits/maternity pay are unambiguously positive. They may help to speed up the return to work if the income effect is strong. But these payments also act as a form of replacement income, which, taken together with job protection, can be a strong incentive to stay at home or even space in another birth. Similarly, an extension in job protection, which is not matched by an increase in the

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<sup>4</sup>While maternity pay is similar to sick pay and almost equivalent to the woman's net income, maternity benefits are flat-rate and paid by the government.

maximum duration of maternity benefits may increase costs for the employer only to some extent. After all, the incentives for staying at home are much stronger if one is paid for doing that. It is therefore of major interest to analyse the interplay of both instruments of welfare politics.

Anecdotal evidence from Germany shows that even the Federal Constitutional Court acknowledges the fact that women may face implicit discrimination for being a potential mother. This was related to a decision about how much of maternity pay has to be borne by employers, considering that higher costs would foster employers' unwillingness to hire young women (Bundesverfassungsgericht 2003). The recent EU-wide attempts to increase maternity leave period, for which the woman receives her full salary, has raised concerns in the UK that increased costs would cause employers to refrain from hiring young, female employees.<sup>5</sup>

This paper empirically investigates the impact of maternity-related job protection on women's wages and employment opportunities by looking at discrete changes in German maternity leave legislation. The job protection period was extended several times between 1986 and 1992, while there was a change in the payment period of maternity benefits in 1986, between 1988 and 1990, and in 1993. The availability of data for that time span allows to compare the effects of different job protection and pay periods on labour market outcomes. The reforms constitute a quasi-experimental setting, because job protection and pay were mainly extended in order to benefit the child.

Building on this quasi-experimental setting, I use a difference-in-differences approach. Women aged 18-45 constitute the treatment group, while men of the same age serve as a control group, because only 2% of them take leave after the birth of a child (Gottschall and Bird 2003). The analysis of employment opportunities and wages using data from the German Socio-Economic Panel are supplemented by an investigation of a potential reaction to more restrictive hiring practises in the form of more intensive job search using German Microcensus data. The focus is on the probability of finding a job among persons who could potentially be parents, i. e. aged 18 – 45, but who did not (yet) have a child. For estimating wages, potential employer selectivity is considered.

In particular, I analyse how easily previously unemployed women in the treatment group find employment relative to the control group before and after the respective changes in policy. My results indicate that the transition into employment implies stronger selectivity among employers after the changes in policy. Both in 1986 and after the 1988–1990 changes, the extension in maternity leave legislation (which implied both an extension in the job

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<sup>5</sup>These effects were discussed in various UK newspapers in March 2009.

protection and the payment period) reduces the probability of finding a job by about 3% for women without a university degree. The critical period of absence is the time between 10 and 18 months of leave. The effect of a job protection and pay period of 18 months as compared to 6 months is highly significant and of about a 6-7% reduced probability of finding a job. Women with a university degree are not affected. These effects are confirmed by a complementary analysis of job search intensity. In the years, in which maternity leave reforms worsen the labour market position of women without higher education, these women more intensively look for jobs. A selection model estimating the wages of the newly hired confirms the selectivity at the employment margin: I do not find significant negative effects on wages. Importantly, only the combination of a job protection and a replacement strategy have significant effects on labour market dynamics.

Section 2 relates maternity-related job-protection to recent models on job protection laws and lay-off costs. The data sets and econometric considerations are presented in section 3, while section 4 contains results and some sensitivity analyses. Section 5 concludes.

## 2 Theoretical Background

Employment protection laws and implied lay-off costs have long been discussed as one of the main reasons for labour market rigidities and unemployment in Europe (Saint-Paul 1997). Often, the emphasis of research on employment protection lies on the welfare effects of externally imposed lay-off costs, which are not part of the employer-worker bargaining process. General equilibrium models of employment protection come to ambiguous conclusions on the effects of job protection laws on average employment. Ljungqvist (2002) shows that the effect on equilibrium employment strongly depends on the underlying model of the labour market.

Maternity leave legislation contributes to the set of employment protection laws, as in many countries the period of maternity-related employment protection has been extended quite generously. Germany grants one of the longest period of statutory, protected leave of currently 3 years. Along the lines of the literature of job protection, maternity-related job protection increases lay-off costs for an employer. A woman has to be given the same or an equivalent job if she returns from maternity leave, although her human capital has depreciated in the meantime. In addition, the employer has to hire a substitute employee for the time of leave. As this is typically associated with a temporary job contract for the substitute employee, suitable candidates are often hard to find. In addition, there may be a waste of firm-specific training, because the substitute employee will have to leave the

firm again when the leave-taker returns. As a result, maternity leave legislation implicitly increases lay-off costs.

The employer would bear a higher risk when hiring a woman, and thus will try to internalise the risk. The additional costs could be internalised in the employer-employee bargaining process, such that the female employee would bear a higher risk premium. In contrast to Schmitz (2004) there are real costs associated with taking leave after the birth of a child, which would be paid by the employee who causes this under symmetric information. That is, unlike in the Schmitz (2004) case, under symmetric information there would not necessarily be a loss in total surplus, given that the decision on how long to take maternity leave is not distorted. Under asymmetric information, however, some agents who do not become pregnant do not cause a cost, have to pay an average risk premium to the principal, because the principal can only observe the average pregnancy risk (Scheubel, 2008).

The costs associated with an employee taking leave should rise with the employee's skill level, and the extent of firm-specific training required to do the job. This is, however, only the case if all skill groups take the same time of leave, because the costs associated with taking leave are obviously also related to the actual period of absence. If a woman has a child in Germany, she takes the full leave period in most cases (e. g. Gottschall and Bird 2003; Büchel and van Ham 2004; Schönberg and Ludsteck 2007). The leave-taking period for women with higher education is, however, shorter, such that the effect on job market prospects for university graduates should be less unambiguous.

### **3 Econometric Considerations and Data**

The advantage of using changes in maternity leave legislation to analyse the labour market effects of a government policy that combines the option of a replacement income with job protection is that maternity leave legislation only affects a narrow group of the working population. This opens up several possibilities to reliably identify the effects of the policy change. As a consequence, a difference-in-difference strategy is very appealing for estimation. The group, which is affected by the policy change – women in childbearing age, who are looking for a job and do not have children – is, however, very special in its composition. This sets high requirements for the data. To properly identify labour market dynamics, panel data containing detailed information on labour market status both in the current and in past periods would be most suitable. When aiming to separate effects on university graduates from effects on non-university graduates, this requires a large data set in addition, because the number of unemployed university graduates is relatively low. Above all, the data has to

be available for a period, in which a policy change took place. I use two different German data sets, to check for the effects of the policy change. The German Socio-Economic Panel (SOEP) helps to identify labour demand effects for its panel structure, while the German Microcensus is cross-section data and provides the information for analysing potential effects on job seeking behaviour. This section first presents the basic identification strategy and encompasses information on both data sets.

### 3.1 Reforms of Maternity Leave Legislation and Econometric Considerations

Maternity leave legislation in Germany was changed several times between 1979 and 2007, which creates a quasi-experimental setting that can be used for a difference-in-differences approach.<sup>6</sup> The difference-in-difference approach is especially appealing as maternity leave legislation should, by definition, only affect women in childbearing age, so that men of the same age or women out of childbearing age constitute a natural control group (Ruhm 1998).

The early reforms of maternity leave legislation, which granted only a relatively short, but job-protected period of 6 months of leave and basic maternity pay and benefits in 1979 and 10 months of leave and basic maternity pay and benefits in 1986 as well as the gradual extensions between 1988 and 1993 were primarily meant to promote the child's well-being. A woman receives maternity pay for the first two months after delivery and may receive maternity pay for the 6 weeks preceding delivery if she wishes to do so. Afterwards, she receives maternity benefits (about 300 € a month) from the government up to the maximum duration of the maternity benefits period. In contrast to the changes in the 80s and 90s, the latest changes to the law were mainly targeted at working mothers. The 2000 reform gave a working parent the right to continue their job part-time instead of full-time after the birth of a child if they desired to do so. This explicitly included men, hardly any of whom took parental leave before although they would have been entitled to it. The 2007 reform then redesigned the benefits structure. A replacement income close to the last net salary is now granted for a full year (*Elterngeld*). Paternity benefits are granted for two additional months, if the other parent agrees to stay home with the child for these 2 months, which was also meant to encourage leave-taking by men.

Unlike the recent changes in paternity benefits, the reforms in the 80s and 90s were introduced for the benefit of the child, so they should be exogenous to womens' labour market prospects. This is especially true for women who are not mothers. Moreover, public discussion of the reforms typically took place only three months before the reform was

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<sup>6</sup>Table 1 gives an overview.

implemented, so the main behavioural changes should have taken place when the reform was implemented and not when it was agreed upon in parliament.

For the difference-in-differences strategy to yield unbiased estimates, treatment must be assigned randomly or selection must only be based on observables. As women in childbearing age should be affected by the reform, because they are potential mothers, men of the same age and characteristics constitute a natural control group. In Germany, it is almost exclusively the mothers who take maternity leave (Gottschall and Bird 2003). Treatment is then based on age and gender. A second potential control group are women out of childbearing age. In my analysis, I define women out of childbearing age to be aged 45 or older. The strategy of using men as well as women out of childbearing age as control groups is similar to Ruhm (1998). As an additional sensitivity check, I also compare the effects on women in childbearing age who do not yet have children to the effects on women who do already have children, but are still in childbearing age.

Corresponding to the introduction of the reforms, I define treatment as *Year 1986/87*, *Year 1991*, *Year 1992* or *Year 1993* in the cross-section models. The treatment effect in 1991 is meant to capture the cumulated effect of the gradual steps in 1988–1990, in which the benefits and protection period were raised from 10 to 18 months. Accordingly, the base periods for this treatment are the years 1986 and 1987, because for these two years the 1986 rules applied, while there was a slightly different rule in place already in 1988. For all other reforms, the base year is the preceding year, except for analysing the joint effect of the 1992 and 1993 reform. For this purpose, I compare effects in 1994 to effects in 1991. The sensitivity checks include using a moving average of the years in the panel for analysing the effect of ‘placebo’ treatments.

The effect of job protection on women’s employment situation should be stronger the stronger the adverse effects of job protection are on the employer. Education should strongly be related to these costs. I compare estimates for women with a university degree and the rest of the sample separately. Moreover, I also use the same approach for different levels in firm-specific training.

An employer can react to the increased period of job protection in two ways: either he can stop to hire women or at least women in childbearing age or he can adjust women’s pay in order to account for higher expected cost in the case of pregnancy, given that the pregnancy risk has remained the same. In both cases, the effect should be stronger for women who are more costly to replace. In estimating these effects, the approach should, however, be different.

First, employment opportunities after the policy change can be analysed best using a

kind of first-differences approach. If employers are more reluctant to hire, it should be more difficult for individuals who do not have a full-time job to find one. A reasonable measure for job opportunities is thus whether someone, who was unemployed before, more easily finds a job after the reform. The variable of interest, measuring the opportunities of employment for those who are affected by the reform, is then the first difference in employment status. Job protection laws in general are very rigid in Germany, so that any reaction can only show for employees, who are hired after the policy change.

I compare the change in employment status in period  $t$  (1986/97, 1991, 1992 or 1993) with the change in employment status in the base period (1985, 1986/87, 1991 or 1992). Let  $e_t$  denote employment status in year  $t$  and  $empl_t$  the change in employment status from the base year to year  $t$ . Then I compare  $empl_t = e_t - e_{t-1}$  with  $empl_{t-1} = e_{t-1} - e_{t-2}$ . As I am interested in the transition from unemployment to employment, I exclude observations, for which  $empl_t - empl_{t-1} = -1$ , i. e. persons who become unemployed. The sample therefore contains persons who move from unemployment into employment, persons who stay employed and persons who stay not employed. The change in employment status in period  $t$  will depend on personal characteristics in the base year,  $t - 1$ . A reduced-form model for finding employment in the year of interest would then be:

$$Y(0) = empl_t - empl_{t-1} = \beta_0 + \beta_t T + \beta_{tg} TG + \beta_{tt} T * TG + \beta_e \mathbf{x}_{e,t-1} + u.$$

$T \in (0, 1)$  is a dummy indicating the treatment, that is, the year of change, while  $TG \in (0, 1)$  is an indicator for the treatment group, such that  $T * TG$  identifies the effect of treatment on the treated.  $\mathbf{x}_e$  denotes a vector of personal characteristics that determine the probability of being hired and that are taken from the base year. Explanatory variables, which capture current characteristics, are taken from the current year.

For estimating the effect of the reforms on wages, I first use a standard Mincer wage regression in a Heckman type selection model, in which the first stage regression is a linear probability model on being employed, to confirm selectivity.

As wages are likely to be adjusted only for new hires, I am interested in the wages of persons, who move from unemployment into employment, i. e.  $empl_t - empl_{t-1} = 1$ . Therefore, given that selectivity is not an issue among university graduates, I check whether the wages of new hires significantly differ from the wages of permanently employed persons for the sample of childless women in childbearing age.

The log wage of individual  $i$  is

$$\log wage_i = \beta_y \mathbf{year}_t + \beta_{tg} TG + \beta_{tt} TG * T + \beta_{ex} \mathbf{x}_i + \varepsilon_i,$$

where  $year_t$  denotes year fixed-effects and  $\mathbf{x}_i$  denotes the usual explanatory variables in a Mincer wage regression.

### 3.2 Employment Opportunities: the German Socio-Economic Panel

The German Socio-Economic Panel (SOEP) conveniently covers the periods of primary interest for my analysis. The SOEP is an ongoing panel study of German households, which was started in 1984 (e. g. Wagner 1993), containing rich information on the labour market situation of the individuals. I use data from waves 1984 - 2000 from the German Socio-Economic Panel (SOEP).<sup>7</sup> The sample for my analysis includes all persons on whom information on labour market status is available, who do not (yet) have a child, and who are younger than 46, except for the situation when I compare women in childbearing age with women out of childbearing age.

The summary statistics for the total sample are displayed in table 2. The table compares persons who found a job and were not employed before in column (1) to persons who are employed and did not experience a change in labour market status in column (2) and to persons who were not employed and did not experience a change in labour market status in column (3). All numbers refer to persons in SOEP sample A who do not have a child. This should rule out the possibility that women have already dropped out of the labour force for the birth of a child. Yet, the proportion of women finding a job if previously unemployed is, even on average, lower than the proportion of women in the full sample.

Table 2 also reveals that those persons hired out of unemployment have to accept lower wages on average than those who are working and do not experience a change in their employment status. This might be due to a higher proportion starting in temporary jobs and these persons being on average slightly younger than persons in the full sample, on average. This is confirmed in figure 1. This is the case irrespective of the form of training or education necessary to do the job. It is thus interesting, how much of this gender pay gap is caused by the higher costs women imply for the employer.

Layoff costs or opportunity costs caused by a potential absence due to maternity should be higher the higher the degree of firm-specific training. Figure 2 displays the percentage of persons, separated by gender and the intensity of training necessary to do the job, who found a job if previously unemployed as a percentage of the working population for each year. In

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<sup>7</sup>The data used in this paper was extracted using the Add-On package PanelWhiz for Stata®. PanelWhiz (<http://www.PanelWhiz.eu>) was written by Dr. John P. Haisken-DeNew ([john@PanelWhiz.eu](mailto:john@PanelWhiz.eu)). See Haisken-DeNew and Hahn (2006) for details. The PanelWhiz generated DO file to retrieve the data used here is available from me upon request. Any data or computational errors in this paper are my own.

jobs, which require at least vocational training or a university degree to start the job, the percentage of women who finds a job is much lower than the percentage of men. This is not always the case for jobs, which only require short training or courses. Conclusions about the effects of the policy reforms in the years of interest, 1986, 1988–1990, 1992 and 1993 are difficult, as the numbers are relatively volatile. The numbers also show another caveat of using this distinction for the intensity of firm-specific human capital. The measure asks for the training necessary to do the job. The highest possible category is a university degree. When it comes to university education, however, the degree of specificity of the human capital can differ largely. In addition, the requirement of a university degree to start a job does not convey too much about the intensity of the firm-specific training that is received thereafter. Besides, the numbers of persons who did not complete vocational training are very low. This is why I just separate the sample into persons with a university degree and persons without a university degree as a general indication of the value of the human capital of a person for the regression analysis.

Two additional issues deserve a closer look in the regression analysis. First, the bunch of reforms took place shortly before or after reunification. Reunification has had major repercussions on the labour market. This should matter if the repercussions have affected women differently than men, e. g. because of the higher participation rate of women in the former GDR. In order to avoid estimating reunification effects instead of reform effects, I only use SOEP Sample A, i. e. the original West German sample. I do, however, devote some additional sensitivity checks in section 4 to this issue.

As a second issue, employers should react differently to an application from a woman who already took maternity leave, either because she is more likely to go on leave again, or, if she has more than one child, the probability might actually be lower. In addition, mothers are more likely to be present in the sample *ex ante*, because they are more likely to be out of gainful employment than fathers. When looking at wage effects, controlling for previous motherhood is even more important. Explicit information on maternity leave spells is available in the SOEP only from 1990 onwards. This is the reason why I restrict the sample to persons without children, to make sure that selection based on previous maternity does not confound the results.

### **3.3 Search Intensity: the German Microcensus**

Information from the German Microcensus complements the analysis with respect to a potential reaction of affected job seekers to more restrictive hiring. It contains both information on the length of the spell of unemployment and on the actual time of active job search. I

construct the measure of search intensity from information on the duration of unemployment and the actual time of job search. Actual time of job search net of the duration of unemployment then is the measure of search intensity. If actual search time exceeds unemployment duration, the person has searched before actually becoming unemployed, which points to a stronger determination to find a new job. This implies that positive values imply a high search intensity, while negative values imply a low search intensity. The distribution of job search intensity is shown in figure 3. The top panels in the figure show search intensity for women and men in childbearing age separately, while the bottom panels show search intensity for women younger than 41 as compared to women older than 41, but younger than 60. The apparent mode in all panels is 0, which is the standard case of starting to search when becoming unemployed.

In 1987, as compared to 1982, there is an increase of the frequency of the top category for both men and women, but the decrease in the frequency of the bottom values is stronger for women (top left). The same spike of an increased frequency in the top category also shows when comparing older to younger women (bottom left). It is not clear, however, whether the decrease in the bottom values was stronger among older or younger women.

In 1991, search intensity is less strong for both men and women in childbearing age (top right). The increase of the mode in 1993 is also visible for both men and women (again top right). The pattern is largely the same when comparing younger to older women (bottom right). In general, significant changes in job search intensity are more likely to have taken place in the 1980s.

The German Microcensus is a representative 1% sample from the German population, which exists since 1957. For the analysis of the intensity of job search, I compare 1993 cross-section data to data 1991 cross-section data, 1991 data to 1987 data and 1987 data to 1982 data. This implies that the impact of the 1986 reform, the joint impact of the 1988-1990 reforms, and the joint impact of the 1992/1993 reforms can be estimated.

Table 3 shows selected summary statistics for the pooled 1993/1991 and the pooled 1987/1982 cross sections. While the first column only includes unemployed persons who did not yet find another job, the second column only includes persons who are unemployed, but have another job offer, and the third column shows summary statistics for the full sample. The unemployed in column (1) in the 1991/1993 sample do not differ strongly from the full sample in column (3). The unemployed are slightly higher educated, with a higher percentage owning a higher secondary school degree as their highest educational attainment. (Former) workers are, however, slightly over-represented in the unemployed sample in column (1) compared to the full sample. While this is also the case in the 1987/1982 sample, the unemployed here seem to be less educated than in the full sample. The unemployed are less

likely to be married in both cross-sections. There seems to have taken place a change in the composition of the unemployed sample between the 80s and the 90s. As long as this development has taken place both for men and women to the same extent, these changes will not affect my results as I use a difference-in-differences approach. The impact of education, however, deserves a closer look.

## 4 Results

An extension in the job protection period in combination with an extension in the pay period worsens the position of women without a university degree on the job market. They face a lower probability of finding employment of about 3% if they were not employed previously. This applies to both the change in pay and protection period in 1986 and the accumulated effect of the incremental changes in the pay and protection period from 1988 – 1990. This implies an accumulated reduction of 6-7% in employment opportunities between 1986 and 1991. The effect of a change in the job protection and the pay period on women with a university degree is not significant. A single change in either pay period or protection period have a lower impact than a joint change.

The first possibility for the employer to react to changed economic conditions is just to refrain from hiring women in childbearing age. This can either imply increased hiring of men or less hiring altogether. The first regression in table 4 shows the regression results for a pooled cross section of observations comparing the situation in 1985 to 1986/87. The sample consists of persons, who were younger than 45 and did not (yet) have a child in the respective previous period. The question, which is to be answered with the regression analysis is whether unemployed women are less likely to find a job if they were looking for a job after the reform was implemented.

Many women work in part-time jobs. One of the reasons for this could be that they rather accept a part-time job considering that they would like to have children in the future. At the same time, an employer might be more likely to hire a woman if she applies for a full-time job, because then it is less likely that she needs to care for her children or that she might have children soon. Men, however, are mainly working in full-time jobs. For the sake of comparability, I exclude those observations who found a part-time job in one of the samples.<sup>8</sup> Other usual variables, which should determine employment opportunities are age, marital status, and to a lesser extent years of education in the previous year. Years of education should matter less, too, because I look at women with a university degree separately. Table

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<sup>8</sup>Refer to tables 4–7 for a comparison of the samples.

4 shows that the 1986 reform has had significant negative effects on women in childbearing age appears without higher education, who would move (or move not) to a full-time job. For this group, the probability of finding employment is reduced by around 3%.

There are several reasons for a negative effect of the 1986 reform on women without a university degree. First, women with higher education return to work earlier anyway. If they delay their return to work too much, their career prospects would be hampered. Moreover, job protection was only half a year in 1986, which is considered appropriate by most employers even today. In addition, moving from maternity pay to maternity benefits would inflict larger income effects on women with higher education and thus promote their earlier return to work. For women with a lower income, the replacement income offered by the government (maternity benefits) would be a more serious alternative to working.

Table 5 confirms this interpretation somewhat. Between January 1988 and July 1990, the period of paid leave on maternity leave and the job-protection period were changed jointly in gradual steps to 18 months in 1990.<sup>9</sup> The cumulated effect of these changes is a decrease in the probability of finding a job of about 3% in 1991 for women without higher education. The effect on women with higher education in childbearing age is positive, but only significant for the sample including women working in part-time jobs. So it could well be that an increased duration of maternity benefits and job protection might mainly affect women without higher education, because potential income effects are stronger.

The 1992 policy reform as such had no significant impact, and neither did the 1993 reform (tables 6 and 7). Coefficients indicate that even the magnitude of a potential effect in the sample without higher education is close to zero. An explanation for this could be the fact that the employer might even be better off if a woman without higher education stays home longer. The costs for replacing her should decrease with the time span when she is on leave. It is more likely to find a substitute for three years than just for 6 months. Additionally, the loss of human capital in the second or third year of absence should not be as large as e. g. in the first 6 months. Therefore, any extension either in job protection or pay period should not make much of a difference if the pay or the protection period are already long. The joint effect of both the 1992 and the 1993 reform is displayed in table 8. The hypothesis of no effect on employment opportunities cannot be rejected.

The second possibility for the employer to react to changed economic conditions is to make women pay a wage-related risk premium for the possibility that some of them might have children. A useful approach to measuring a potential risk premium in pay is an estimation of the returns to education. I use a standard Mincer regression in a Heckman selection

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<sup>9</sup>Table 1 gives a more detailed overview.

model setting, in which the selection is based upon being employed or not. As women's labour supply elasticity is much higher than men's I use individual worries about one's financial situation as a proxy for job seeking intensity based on the assumption that search intensity should be stronger one's financial situation requires finding a job. This variable also serves as the exclusion restriction, because the intensity of worries about someone's financial situation should not determine a person's wage. Table 2 reveals that indeed newly hired persons faced stronger incentives to take up work, as their average net monthly household income in the previous period is significantly lower than the net monthly household income of persons who are not employed and stay not employed. A variable capturing future fertility acts as an additional exclusion restriction. Currently, SOEP data is available up to 2007. This means that in the optimum case, for someone observed in 1993 future fertility behaviour can be tracked for 14 additional years. At least for half the sample aged 18 – 24 this gives a quite accurate picture of actual behaviour. If a woman plans to have children, this will affect her search behaviour or the type of job she accepts in the Polacheck (1981) sense, but not her final wage. Any effect on wages should then only depend on the job's characteristics, but not on the process of choice. A variable, which measures whether a person's educational level corresponds to job requirements is meant to capture the effects of job type in relation to education. Weekly actual work hours are also meant to adjust for job type effects. Differences in pay, which may result from the type of task, are captured by including dummy variables indicating the type of industry.

Even when controlling for job type, temporary workers generally have to accept lower wages, such that this has to be controlled for separately. Temporary job contracts are a means of counteracting the rigidities, which are enhanced by job protection legislation (e. g. Cahuc and Postel-Vinay 2002). Empirical research of fixed-duration contracts has shown that the introduction of such a type of contract increases flexibility and labour market flows (Goux et al. 2001; Blanchard and Landier 2001).<sup>10</sup> For an employer, switching to only hiring on a temporary basis to alleviate the additional lay-off costs implied by job protection in maternity leave legislation may be an option to be considered. Offering more jobs on a temporary basis can be a means of implicitly cutting wages. Indeed, as table 9 shows, temporary workers pay a premium in the form of reduced wages. The SOEP data do not, however, show a significant effect of maternity leave reforms on the probability of women in childbearing age to end up in a temporary job.<sup>11</sup> There is no negative effect of any treatment period on wages (table 9). The estimation indicates significant selection in the 1991 and 1992/1993 samples for the groups without higher education. The results show that

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<sup>10</sup>Boeri (1999) is an exception to this. He presents a model and empirical evidence that temporary contracts can decrease the probability of the unemployed finding a job.

<sup>11</sup>These results are not presented here, but can be obtained upon request.

while employers are more selective with respect to hiring when it comes to female employees without higher education, but they cannot impose a wage penalty.

As a third possibility, individual search dynamics could have changed as a response to changed conditions on the labour market. For instance, if employers are more restrictive with regard to hiring women with higher education, but these women increase job search intensity, the net effect could be close to zero. Microcensus data are well-suited for checking this, because both measures of unemployment duration and time of job search are provided. I construct a measure of search intensity of these two variables, that is, I define search intensity as time of job search net of unemployment duration. The distribution of this measure, which suggests an increased search intensity between 1982 and 1987, but neither between 1987 and 1991 nor between 1991 and 1993, is displayed in figure 3.

Table 12 confirms that search intensity has significantly risen between 1982 and 1987. Column (1) displays effects on search intensity among men and women with and without a university degree aged 18–45 in a robust ordered probit regression. Column (2) shows the effects on search intensity for women aged 18–45 and women aged 46–59 both with and without a university degree in a robust ordered probit regression. Both samples only cover West German samples of unemployed persons. In both samples, the probability for the highest value has risen, which implies a more intense job search.

Job search did not become more intensive between 1991 and 1993. Table 13 shows the first results from a robust ordered probit regression on search intensity on the sample of unemployed persons in the pooled cross-section of 1991 and 1993 Microcensus data. After the reform, women with a university degree are less likely to end up in the highest category, which means that they are less likely to start search early. This, however, only holds when young women are compared to young men, but not when young women are compared to older women. A simple probit model on the probability of being employed additionally confirms the effects in the SOEP data.

## 4.1 Some Additional Sensitivity Checks

The aim of this section is to confirm the robustness of the results not only with respect to different control groups, but also with respect to different treatments and to rule out reunification and business cycle effects.

The straightforward approach to checking the importance of the definition of the treatment effects is to construct ‘placebo’ treatments. As I have defined the actual treatments to be either of two subsequent years in order to rule out cyclical volatility (1986/87) or at

the end of a period of gradual changes (1991) or both (1992/93), the placebo treatments are constructed as a moving average of the years in the panel. The placebo treatments are checked both using men of the same age group as a control group, and using older women as a control group. Both control groups are again restricted to members of SOEP sample A and persons who did not have a child when they were looking for a job.

Using placebo treatments confirms the existence of a significantly lower probability of finding a job around 1986 and 1991 for women without higher education, as presented in table 10. One treatment around the year 1991 even shows a significant positive effect on women with higher education. This effect, however, turns insignificant when not comparing the year 1991 to the reunification years of 1990 and 1989, but to the last year without a change in maternity leave legislation, 1987. Negative effects on the probability of finding a job in both 1986 and 1991 for women without higher education is also confirmed when using women aged 45 or older as a control group, as displayed in table 11.

In addition, instead of comparing women with and without a university degree, I also compare women in jobs, which require a vocational training or a university degree to women in jobs, which only require some introduction or short training period. Results are qualitatively similar, both for the linear probability model and the selection model. Wages never turn out to be significantly affected.

Another possible control group is women who already have children. If the current number of children is low, the employer will assign a higher probability to this woman becoming pregnant again, whereas if the current number of children is, say, equal to or above 2, the woman is unlikely to have more children, so the employer will assign a lower probability to her becoming pregnant. As a consequence, I test the model with actual treatments and placebo treatments on women in childbearing age without children relative to women with children and still in childbearing age. The results are very similar to the previous ones, and confirm the validity of the model.<sup>12</sup>

One concern that might still remain is the concern that reunification might have affected female labour supply differently than male labour supply. In contrast to West German women, all East German women were used to working. So the relative increase of female labour supply is likely to have been larger than the relative increase of male labour supply. This then worsens a West German woman's competitive position and makes it harder for her to find a job. If the treatment effects around 1991 actually measure reunification effects, they should be a significant determinant of something that should have been clearly affected by reunification, such as worries about Germany's economic development. In every wave of the

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<sup>12</sup>Detailed results can be obtained from the author upon request.

SOEP, respondents are asked to rate their worries about Germany's economic development to be very worried, slightly worried, or not worried at all. In an auxiliary regression, I take a binary variable of being very worried or not as a dependent variable and regress this on actual treatments as well as placebo treatments. A significant negative effect only appears for the actual reunification years 1990 and 1989, but not in those years when changes in maternity leave legislation should have their strongest effect. Similarly, the treatments do not significantly affect the probability of being married.<sup>13</sup>

Another aspect in tables 10 and 11 underpins the fact that it is effects related to maternity leave legislation that are measured. Around 1999 positive treatment effects appear for both women with and without higher education, though more strongly for women with higher education. In fact, in 1999 the German government agreed on a complete reform of maternity leave legislation to improve the labour market position of women, which came into effect in 2000.<sup>14</sup>

This analysis therefore offers clear evidence that a job protection strategy in combination with a replacement income unambiguously worsens the labour market position of women without higher education. They have to pay a risk premium: if previously not employed, it is more difficult to move to find gainful employment after the policy reform. The analysis also gives important insights into the effects of job protection rules. If job protection is at quite high a level already, like maternity-related job protection in Germany in 1992, a further extension has negligible effects on the labour market position of the affected group. Accordingly, search intensity among the affected group increased when the reform had a significant effect, i. e. in 1986 and 1991, but if at all decreased in 1993 after the last steps of the 1992/93 reforms were passed. So while a relatively short spell of receiving replacement incomes makes it more difficult to find a job for women without a university degree, women with higher education are less likely to be affected. The critical spell, which worsens the labour market position, is between 10 and 18 months of leave. Generally, it is the combination of job protection and replacement income that matters.

## 5 Conclusion

This paper sheds light on the effects of maternity leave legislation on the labour market outcomes for women, without restricting the analysis to mothers. By using exogenous variation in the length of the job protection and benefit entitlement period, the analysis uses a

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<sup>13</sup>Please contact the author to obtain the detailed results.

<sup>14</sup>Also refer to table 1.

difference-in-differences strategy to show the effect of legislation changes on women's wages and employment opportunities.

The analysis is based on a model, which assumes that the leave period imposes costs on the employer. As the employer cannot know which female employee becomes pregnant, a risk premium has to be borne by all females willing to participate in the labour market. The contribution of the empirical analysis is twofold. First, I estimate whether employment opportunities change after changes in legislation. The analysis shows that a prolongation of job protection by 4 months in combination with a prolongation in the entitlement period by the same time mainly affects women without a university degree. Their chances to find (full-time) employment decrease by about 3%. The cumulated effect of gradual changes, which raised both the job protection period and the benefit entitlement period from 10 to 18 months is of the same magnitude. As a consequence, the affected women increase the intensity of job search. A further prolongation of the job protection period to 36 months and of the benefit entitlement period to 24 months does not have a similar effect. Women with higher education in childbearing age are not significantly affected. My results indicate that it is the combination of both measures, which worsens the labour market position of women in childbearing age.

Second, the estimation of women's returns to education with a selection model confirms selection, but also shows that once a woman has found a job, there is no remaining wage penalty associated with being in childbearing age.

One should always keep in mind, that other changes in maternity leave legislation have positive effects on female labour supply (e. g. Ruhm 1998; Schönberg and Ludsteck 2007). The prevailing focus on supply side effects, however, does not cover the whole story. As my results indicate, the mere potential entitlement to a leave period worsens women's position in the labour market. Given the evidence for hampered employment opportunities, which are associated with too generous maternity leave policies, recent moves towards more generous policies and in particular lengthier job protection in combination with lengthier benefit entitlement periods should be regarded with caution. These policies implicitly worsen the labour market position of women in childbearing age. Employers react to an implicit rise in expected costs associated with higher social standards with more selective hiring.

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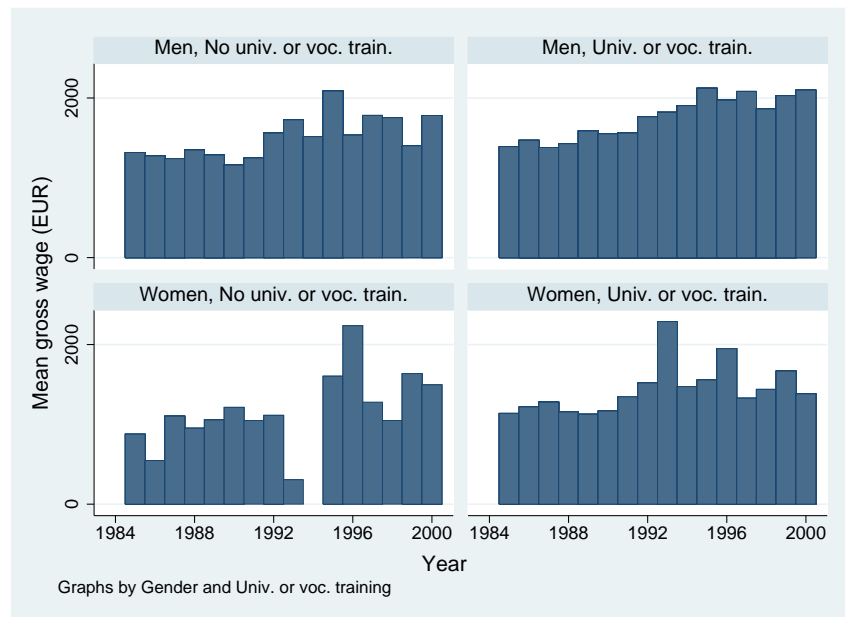
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# Appendix

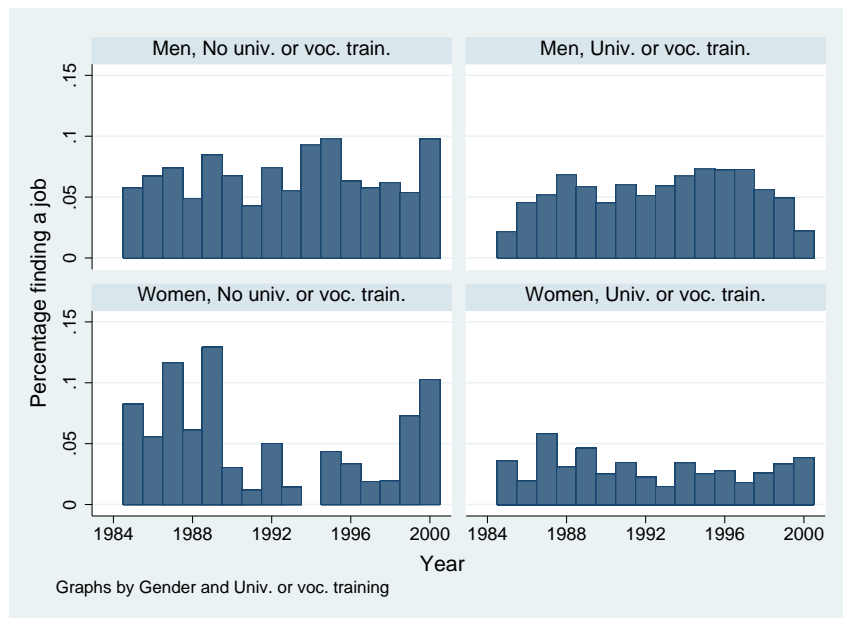
## A: Figures

Figure 1: NET INCOME OF THE NEWLY HIRED (SOEP)



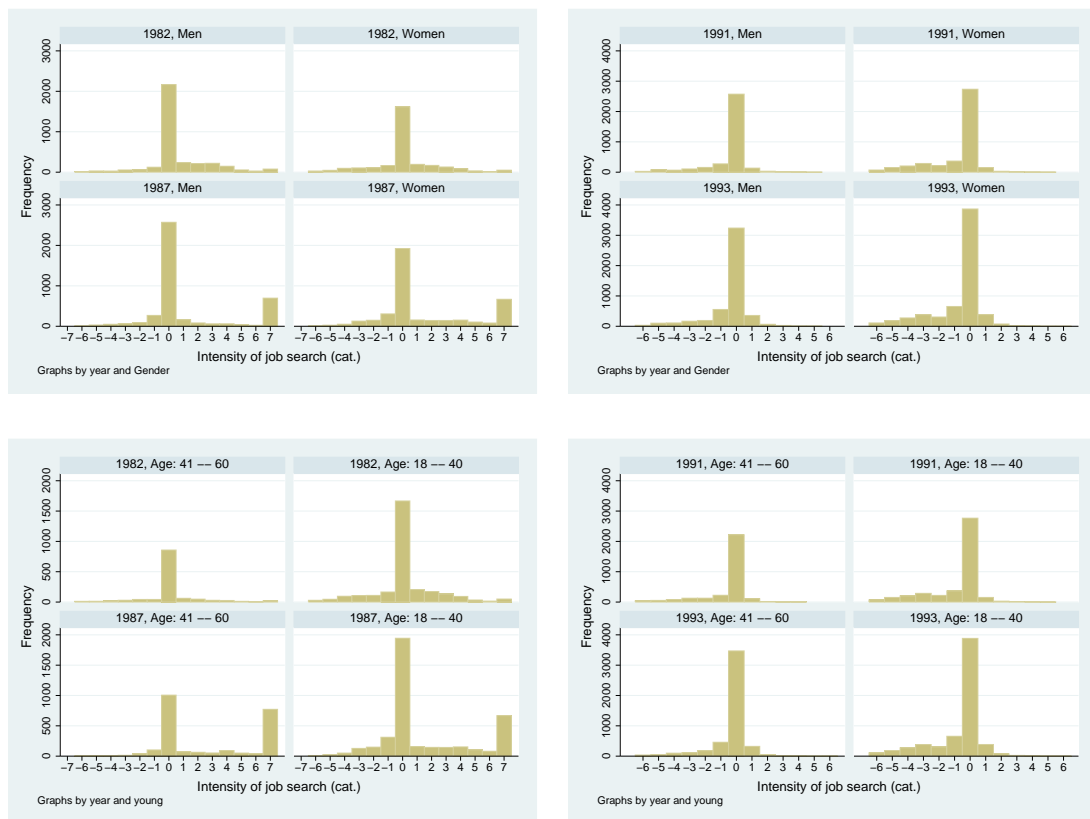
The figure displays the average gross wage of persons who were unemployed in  $t - 1$  and who found a job in the respective year. Numbers refer to persons in SOEP Sample A aged younger than 40, who did not (yet) have their first child.

Figure 2: PERCENTAGE FINDING A JOB IF PREVIOUSLY UNEMPLOYED (SOEP)



The figure displays the percentage of persons, who were unemployed in  $t - 1$  and who found a job in the respective year relative to persons without a job change. Numbers refer to persons in SOEP Sample A aged younger than 40, who did not (yet) have their first child.

Figure 3: JOB SEARCH INTENSITY (CAT.) IN THE POOLED MICROCENSUS SAMPLES, BY GENDER AND AGE



Job search intensity is measured as the time of search, which exceeds the actual period of unemployment, i. e. negative values imply that the actual period of unemployment is longer than the period of actual search. Coding of the original variables (both period of unemployment and period of job search): 1: less than 1 month, 2: 1-3 months, 3: 3-6 months, 4: 6-12 months, 5: 12-18 months, 6: 18-24 months, 7: 24 months and more.

## B: Tables

Table 1: MATERNITY LEAVE LEGISLATION IN GERMANY

<b>Time</b>	<b>Change</b>
January 1965	2 months of job-protected maternity leave.
May 1979	6 months of job-protected maternity leave.
January 1986	10 months of job-protected maternity leave.
January 1986	10 months of job-protected maternity leave.
January 1988	12 months of job-protected maternity leave.
January 1989	15 months of job-protected maternity leave.
July 1990	18 months of job-protected maternity leave.
January 1992	18 months of paid maternity leave; 36 months of job protection.
January 1993	24 months of paid maternity leave; 36 months of job protection.
December 1997	Incremental changes in the applicability rules.
January 2000	36 months of job-protected leave for mothers and fathers simultaneously, 24 months of which paid; entitlement to part-time job with same employer upon request of employee; maternity benefits of 450 a € month, if parent agrees to draw the benefits for 12 months only.
January 2006	Paternity pay changed to 67% of last net income (max.: 1800/€month, min.: 300/€month) for the first 12 months, and for additional 2 months if the other parent takes leave for these two months; more generous rules for low-income parents or parents of more children younger than 3 years of age.

If not specified differently, the mother is, first, entitled to maternity pay, which is borne by the employer similar to sick pay, for the first two months after delivery and 6 weeks before delivery. Second, maternity benefits are flat-rate around 300 /€month, and paid by the government.

Table 2: SUMMARY STATISTICS FOR SELECTED VARIABLES (SOEP)

Variable	(1)		(2)		(3)		(4)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
<b>Selected Variables</b>								
Gross monthly income €	1594.02	630.92	1930.08	1087.64			1918.3	1074.33
Work hours per week	42.56	7.75	42.38	8.49			42.19	8.75
Firm Size	7.27	2.62	7.84	2.46			7.8	2.48
Intensity of job training	4.45	1.43	4.54	1.19			4.60	1.16
Years in unemployment	0.75	1.31	0.25	0.76	0.35	1.19	0.27	0.75
Years with firm			6.36	5.24			6.06	5.25
Net month. HH inc.: $t - 1$	1770.5	1132.13	2066.75	1167.97	2074.89	1399.69	2053.18	1182.37
Age in $t - 1$	25.63	4.83	29.03	5.21	21.68	4.76	28.9	5.23
Obs.	<b>701</b>		<b>14568</b>		<b>6382</b>		<b>14874</b>	
<b>Selected Dummy Variables</b>								
Gender (D)	0.26		0.36		0.4		0.36	
Temp. job contract (D)	0.23		0.04				0.05	
Full-time job (D)	1		0.97				0.96	
Educ. = job requ. (D)	0.64		0.70				0.69	
Industry: service (D)	0.24		0.25				0.25	
Industry: manuf. (D)	0.24		0.25				0.24	
Industry: constr. (D)	0.15		0.12				0.12	
Industry: retail (D)	0.1		0.12				0.12	
Industry: pub. service (D)	0.05		0.12				0.11	
Married in $t - 1$ (D)	0.14		0.37		0.06		0.36	
Univ. degree in $t - 1$ (D)	0.09		0.13		0.02		0.14	
Obs.	<b>763</b>		<b>15658</b>		<b>6382</b>		<b>14874</b>	

Column (1) shows summary statistics for all persons in the panel 1985 – 2000 who found a full-time job if previously unemployed. Column (2) displays summary statistics for all persons employed in a full-time or part-time job and did not experience a change in labour market status. Column (3) shows summary statistics for all persons, who are not employed and did not experience a change in their labour market status. Column (4) shows summary statistics for the full sample, i. e. for all persons for whom labour market status is known. All statistics refer to persons in SOEP sample A who did not (yet) have their first child.

Table 3: SUMMARY STATISTICS FOR SELECTED VARIABLES (MICROCENSUS)

Variable	(1)		(2)		(3)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
<b>Pooled Sample 1991 and 1993</b>						
Age	29.6	5.91	27.74	5.11	28.79	5.5
No. of persons in HH	1.49	0.69	1.48	0.78	1.52	0.63
Town size	3.27	1.28	3.57	1.28	3.26	1.27
Net income (cat.)	3.26	1.26	3.12	1.8	5.98	2.69
Gender (D)	0.41	0.49	0.48	0.51	0.47	0.5
Married (D)	0.27	0.45	0.22	0.42	0.32	0.47
German (D)	0.87	0.34	0.89	0.31	0.93	0.26
Working (D)	0.02	0.13	0.04	0.21	0.79	0.41
Receives unempl. benefits (D)	0.75	0.43	0	0	0.04	0.2
Highest school degree: Higher sec. (D)	0.2	0.4	0.11	0.31	0.12	0.33
Highest school degree: Lower sec. (D)	0.14	0.34	0.15	0.36	0.23	0.42
Household head (D)	0.71	0.45	0.59	0.5	0.71	0.46
Only search part-time (D)	0.04	0.2	0.04	0.21	0.01	0.08
Only search full-time (D)	0.69	0.46	0.28	0.46	0.07	0.26
Public official (D)	0.01	0.09	0.02	0.15	0.05	0.23
Employee (D)	0.33	0.47	0.37	0.49	0.48	0.5
Worker (D)	0.56	0.5	0.28	0.46	0.3	0.46
In voc. training (D)	0.02	0.15	0.07	0.25	0.03	0.17
Self-employed (D)	0.02	0.15	0.02	0.15	0.05	0.22
No. of obs.	<b>5873</b>		<b>46</b>		<b>107721</b>	
<b>Pooled Sample 1982 and 1987</b>						
Age	27.36	6.10	27.39	5.52	26.92	5.98
Town size	7.73	4.11	7.89	3.36	7.39	4.05
Gender (D)	0.4	0.49	0.46	0.5	0.45	0.5
Married (D)	0.24	0.43	0.27	0.44	0.3	0.46
German (D)	0.86	0.35	0.83	0.38	0.92	0.27
Working (D)	0.02	0.15	0	0	0.76	0.43
Receives unempl. benefits (D)	0.68	0.47	0	0	0.04	0.2
Highest school degree: Higher sec. (D)	0.15	0.36	0.38	0.49	0.28	0.45
Highest school degree: Lower sec. (D)	0.17	0.37	0.25	0.43	0.26	0.44
Household head (D)	0.53	0.5	0.53	0.5	0.51	0.5
Only search part-time (D)	0.04	0.21	0.1	0.3	0.01	0.07
Only search full-time (D)	0.73	0.44	0.4	0.49	0.07	0.25
Public official (D)	0.01	0.07	0.01	0.09	0.05	0.23
Employee (D)	0.24	0.43	0.33	0.47	0.37	0.48
Worker (D)	0.63	0.48	0.41	0.49	0.29	0.45
In voc. training (D)	0.02	0.15	0.01	0.12	0.06	0.24
Self-employed (D)	0.01	0.11	0.01	0.09	0.04	0.19
No. of obs.	<b>7613</b>		<b>134</b>		<b>121280</b>	

Column (1) shows summary statistics for all persons, who are unemployed in the sample, and who do not yet have another job offer. Column (2) displays summary statistics for all persons who are unemployed, but did already receive another job offer. Column (3) shows summary statistics for the full pooled 1991 and 1993 sample. All statistics refer to persons aged 18 – 40, who do not have children. Net monthly income is a categorical variable, which is available on a personal level for the pooled 1991/1993 sample only. 1: less than 300 DM, 2: 300-600 DM, 3: 600-1000 DM, 4: 1000-1400 DM, 5: 1400-1800 DM, 6: 1800-2200 DM, 7: 2200-2600 DM, 8: 2600-3000 DM, 9: 3000-3500 DM, 10: 3500-4000 DM, 11: 4000-4500 DM, 12: 4500-5000 DM, 13: 5000-5500 DM, 14: 5500-6000 DM, 15: 6000-6500 DM, 16: 6500-7000 DM, 17: 7000-7500 DM, 18: 7500 DM and more. Information on profession for the unemployed refers to their last job.

Table 4: REGRESSION RESULTS – EMPLOYMENT OPPORTUNITIES: REFORM 1986 (SOEP)

	(1)	(2)	(3)	(4)
Year 1986/87 * gender (D)	-.032 (.052)	-.017 (.049)	-.033 (.016)**	-.033 (.018)*
Gender (D)	.010 (.044)	-.019 (.042)	.022 (.015)	.028 (.016)*
Year: 1986 (D)	.017 (.021)	.008 (.022)	.010 (.009)	.005 (.011)
Year: 1987 (D)	.036 (.021)*	.021 (.022)	.003 (.009)	-.002 (.011)
Age in $t - 1$	-.108 (.028)***	-.098 (.028)***	-.004 (.008)	-.004 (.011)
Age in $t - 1$ sq.	.002 (.0004)***	.001 (.0004)***	.0001 (.0001)	.0001 (.0002)
Married in $t - 1$	.003 (.020)	-.00009 (.020)	-.010 (.007)	-.009 (.008)
Years of educ. in $t - 1$	-.003 (.067)	-.018 (.069)	-.135 (.037)***	-.137 (.036)***
Years of educ. in $t - 1$ sq.	-.002 (.002)	-.001 (.002)	.005 (.002)***	.006 (.002)***
Fachhochschule (D)	-.126 (.045)***	-.124 (.045)***		
German (D)	.051 (.036)	.077 (.044)*	.008 (.019)	.020 (.024)
First child born in current yr. (D)	-.049 (.044)	-.010 (.056)	.007 (.014)	-.001 (.015)
Years since last full-time job	-.100 (.023)***	-.105 (.023)***	-.103 (.008)***	-.112 (.008)***
Ind. last job: Electr., constr. (D)	-.033 (.030)	-.045 (.031)	-.030 (.009)***	-.036 (.011)***
Ind. last job: Admin., publ. serv. (D)	-.045 (.022)**	-.058 (.021)***	-.007 (.010)	-.008 (.012)
Unempl. exp. (yrs.) in $t - 1$	-.050 (.071)	-.005 (.073)	.077 (.011)***	.085 (.012)***
Unempl. exp. (yrs.) in $t - 1$ sq.	.072 (.054)	.035 (.051)	-.005 (.0009)***	-.005 (.0008)***
Obs.	675	730	4653	4159

The table displays the effect of maternity leave legislation on the probability of finding employment for women in childbearing age who either found a job in 1986/87 if previously unemployed or found a job in 1985 if previously unemployed as compared to persons without a change in labour market status. The associated change in maternity leave legislation was an extension of the job protection period from 6 to 10 months and an increase of 4 months in the maximum duration of the pay of maternity benefits ((300€ a month). The sample covers persons aged 45 or younger in SOEP sample A, who do not (yet) have a child. The interaction term of the year of treatment and gender indicates the treatment on the treated as in a difference-in-difference linear probability model. The treatment period is years 1986 and 1987. Column (1) covers university graduates in a full-time job. Column (2) covers university graduates in both full-time and part-time jobs. Column (3) displays results for persons without a university degree in full-time jobs, while column (4) displays results for persons without a university degree in both full-time and part-time jobs. Additional control variables include experience in full-time and part-time jobs, the maximum future number of children, and individual worries.

Table 5: REGRESSION RESULTS – EMPLOYMENT OPPORTUNITIES: REFORMS 1988 – 1990 (SOEP)

	(1)	(2)	(3)	(4)
Year 1991 * gender (D)	.065 (.047)	.095 (.046)**	-.033 (.012)***	-.029 (.014)**
Gender (D)	-.036 (.029)	-.048 (.027)*	-.014 (.009)	-.010 (.010)
Year: 1987 (D)	.017 (.021)	.011 (.020)	-.009 (.008)	-.009 (.008)
Year: 1991 (D)	-.0005 (.024)	-.0003 (.024)	-.011 (.010)	-.008 (.010)
Age in $t - 1$	-.095 (.028)***	-.092 (.028)***	-.0004 (.008)	-.006 (.008)
Age in $t - 1$ sq.	.001 (.0004)***	.001 (.0004)***	.00003 (.0001)	.0001 (.0001)
Married in $t - 1$	-.005 (.021)	-.012 (.021)	-.014 (.007)**	-.008 (.007)
Years of educ. in $t - 1$	.211 (.110)*	.176 (.109)	-.063 (.030)**	-.083 (.030)***
Years of educ. in $t - 1$ sq.	-.009 (.004)**	-.008 (.004)**	.003 (.001)**	.004 (.001)***
Fachhochschule (D)	-.212 (.055)***	-.202 (.052)***		
German (D)	.066 (.045)	.100 (.052)*	.014 (.016)	.020 (.016)
First child born in current yr. (D)	-.008 (.050)	-.006 (.050)	.012 (.012)	.005 (.013)
Years since last full-time job	-.089 (.016)***	-.092 (.016)***	-.056 (.005)***	-.061 (.005)***
Ind. last job: Electr., constr. (D)	-.019 (.036)	-.021 (.036)	-.013 (.010)	-.014 (.010)
Ind. last job: Admin., publ. serv. (D)	-.014 (.027)	-.031 (.027)	-.005 (.010)	-.008 (.010)
Unempl. exp. (yrs.) in $t - 1$	-.017 (.068)	.029 (.064)	.045 (.008)***	.050 (.009)***
Unempl. exp. (yrs.) in $t - 1$ sq.	.047 (.050)	.013 (.043)	-.003 (.0006)***	-.003 (.0007)***
Obs.	631	684	4406	4587

The table displays the effect of maternity leave legislation on the probability of finding employment for women in childbearing age who either found a job in 1991 if previously unemployed or found a job in 1987 if previously unemployed as compared to persons without a change in labour market status in the respective years. The associated changes in maternity leave legislation took place gradually from 1988 to 1990. The job protection period was extended from 10 to 18 months and the maximum duration of the pay of maternity benefits (300 € a month) was increased by 8 months. Treatment should have come fully into effect in 1991, whereas the base period is taken to be the last year without a change in legislation, the year 1987. The sample covers persons aged 45 or younger in SOEP sample A, who do not (yet) have a child. The interaction term of the year of treatment and gender indicates the treatment on the treated as in a difference-in-difference linear probability model. Column (1) covers university graduates in a full-time job. Column (2) covers university graduates in both full-time and part-time jobs. Column (3) displays results for persons without a university degree in full-time jobs, while column (4) displays results for persons without a university degree in both full-time and part-time jobs. Additional control variables include experience in full-time and part-time jobs, the maximum future number of children, and individual worries.

Table 6: REGRESSION RESULTS – EMPLOYMENT OPPORTUNITIES: REFORM 1992 (SOEP)

	(1)	(2)	(3)	(4)
Year 1992 * gender (D)	.004 (.051)	-.030 (.055)	.017 (.013)	.013 (.016)
Gender (D)	.026 (.040)	.066 (.044)	-.044 (.010)***	-.054 (.013)***
Year: 1992 (D)	-.020 (.023)	-.006 (.024)	-.0004 (.010)	-.003 (.011)
Age in $t - 1$	-.028 (.037)	-.038 (.041)	.008 (.010)	.001 (.011)
Age in $t - 1$ sq.	.0005 (.0005)	.0006 (.0006)	-.0001 (.0001)	1.00e-05 (.0002)
Married in $t - 1$	-.011 (.022)	.002 (.024)	-.010 (.006)	-.008 (.007)
Years of educ. in $t - 1$	.178 (.081)**	.194 (.089)**	-.013 (.029)	-.043 (.039)
Years of educ. in $t - 1$ sq.	-.008 (.003)**	-.008 (.003)**	.0006 (.001)	.002 (.002)
Fachhochschule (D)	-.161 (.066)**	-.190 (.073)***		
German (D)	-.002 (.051)	.019 (.065)	.030 (.015)**	.038 (.017)**
First child born in current yr. (D)	.092 (.085)	.139 (.106)	.007 (.011)	.011 (.019)
Years since last full-time job	-.072 (.017)***	-.078 (.042)*	-.030 (.004)***	-.042 (.006)***
Ind. last job: Electr., constr. (D)	.013 (.044)	-.007 (.044)	-.004 (.013)	-.012 (.013)
Ind. last job: Admin., publ. serv. (D)	.067 (.048)	.053 (.051)	-.017 (.009)*	-.027 (.010)***
Unempl. exp. (yrs.) in $t - 1$	.024 (.071)	.106 (.086)	.026 (.008)***	.033 (.011)***
Unempl. exp. (yrs.) in $t - 1$ sq.	.007 (.059)	-.041 (.068)	-.002 (.0006)***	-.002 (.0007)***
Obs.	373	360	2661	2431

The table displays the effect of maternity leave legislation on the probability of finding employment for women in childbearing age who either found a job in 1992 if previously unemployed or found a job in 1991 if previously unemployed as compared to persons without a change in labour market status. The associated change in maternity leave legislation was an extension of the job protection period from 18 to 36 months, which came to effect on January 1st, 1992. The sample covers persons aged 45 or younger in SOEP sample A, who do not (yet) have a child. The interaction term of the year of treatment and gender indicates the treatment on the treated as in a difference-in-difference linear probability model. Column (1) covers university graduates in a full-time job. Column (2) covers university graduates in both full-time and part-time jobs. Column (3) displays results for persons without a university degree in full-time jobs, while column (4) displays results for persons without a university degree in both full-time and part-time jobs. Additional control variables include experience in full-time and part-time jobs, the maximum future number of children, and individual worries.

Table 7: REGRESSION RESULTS – EMPLOYMENT OPPORTUNITIES: REFORM 1993 (SOEP)

	(1)	(2)	(3)	(4)
Year 1993 * gender (D)	-.018 (.049)	-.022 (.046)	-.002 (.014)	-.002 (.014)
Gender (D)	.051 (.039)	.040 (.038)	-.025 (.011)**	-.021 (.012)*
Year: 1993 (D)	.016 (.019)	.023 (.023)	-.0005 (.010)	-.0002 (.010)
Age in $t - 1$	-.062 (.037)*	-.056 (.039)	.006 (.010)	.003 (.010)
Age in $t - 1$ sq.	.001 (.0005)*	.0009 (.0005)	-.00008 (.0001)	-1.00e-05 (.0001)
Married in $t - 1$	.018 (.021)	.006 (.023)	-.007 (.006)	-.007 (.007)
Years of educ. in $t - 1$	-.045 (.124)	-.021 (.120)	-.078 (.033)**	-.084 (.033)**
Years of educ. in $t - 1$ sq.	-.00008 (.004)	-.0008 (.004)	.003 (.001)**	.003 (.001)**
Fachhochschule (D)	-.107 (.071)	-.126 (.067)*		
German (D)	-.144 (.131)	-.077 (.112)	-.024 (.027)	-.018 (.026)
First child born in current yr. (D)	.023 (.088)	.057 (.089)	.001 (.010)	.0001 (.010)
Years since last full-time job	-.067 (.017)***	-.073 (.017)***	-.024 (.003)***	-.027 (.003)***
Ind. last job: Electr., constr. (D)	-.042 (.031)	-.045 (.031)	-.0004 (.013)	-.006 (.013)
Ind. last job: Admin., publ. serv. (D)	.009 (.046)	.014 (.048)	-.024 (.007)***	-.030 (.008)***
Unempl. exp. (yrs.) in $t - 1$	-.002 (.040)	-.030 (.045)	.022 (.008)***	.016 (.008)**
Unempl. exp. (yrs.) in $t - 1$ sq.	.021 (.034)	.021 (.035)	-.001 (.0006)**	-.001 (.0005)**
Obs.	367	400	2612	2718

The table displays the effect of maternity leave legislation on the probability of finding employment for women in childbearing age who either found a job in 1993 if previously unemployed or found a job in 1992 if previously unemployed as compared to persons without a change in labour market status. The associated change in maternity leave legislation was an extension of the maximum duration of the pay of maternity benefits (300€ a month) from 18 to 24 months. The sample covers persons aged 45 or younger in SOEP sample A, who do not (yet) have a child. The interaction term of the year of treatment and gender indicates the treatment on the treated as in a difference-in-difference linear probability model. Column (1) covers university graduates in a full-time job. Column (2) covers university graduates in both full-time and part-time jobs. Column (3) displays results for persons without a university degree in full-time jobs, while column (4) displays results for persons without a university degree in both full-time and part-time jobs. Additional control variables include experience in full-time and part-time jobs, the maximum future number of children, and individual worries.

Table 8: REGRESSION RESULTS – EMPLOYMENT OPPORTUNITIES: REFORMS 1992/93 (SOEP)

	(1)	(2)	(3)	(4)
Year 1994 * gender (D)	-.028 (.053)	-.021 (.051)	.016 (.014)	.008 (.015)
Gender (D)	.021 (.038)	.029 (.042)	-.048 (.010)***	-.045 (.012)***
Year: 1994 (D)	.016 (.028)	.007 (.027)	.004 (.010)	.004 (.011)
Age in $t - 1$	-.035 (.036)	-.032 (.035)	-.009 (.010)	-.038 (.006)***
Age in $t - 1$ sq.	.0006 (.0005)	.0006 (.0005)	.0001 (.0002)	.0005 (.0001)***
Married in $t - 1$	-.039 (.022)*	-.051 (.021)**	-.007 (.007)	-.007 (.008)
Years of educ. in $t - 1$	.127 (.090)	.140 (.090)	.058 (.023)**	.014 (.027)
Years of educ. in $t - 1$ sq.	-.007 (.003)**	-.007 (.003)**	-.002 (.001)**	-.0002 (.001)
Fachhochschule (D)	-.256 (.060)***	-.265 (.060)***		
German (D)	.016 (.070)	.075 (.067)	.036 (.012)***	.042 (.012)***
First child born in current yr. (D)	-.003 (.061)	-.012 (.060)	.008 (.012)	.026 (.018)
Years since last full-time job	-.054 (.010)***	-.061 (.011)***	-.028 (.004)***	-.029 (.004)***
Ind. last job: Electr., constr. (D)	.011 (.047)	.016 (.045)	-.010 (.013)	-.013 (.013)
Ind. last job: Admin., publ. serv. (D)	.018 (.048)	.018 (.045)	-.002 (.012)	-.011 (.011)
Unempl. exp. (yrs.) in $t - 1$	.100 (.083)	.035 (.109)	.030 (.008)***	.039 (.009)***
Unempl. exp. (yrs.) in $t - 1$ sq.	-.038 (.049)	.022 (.073)	-.002 (.0005)***	-.002 (.0006)***
Obs.	392	422	2564	2676

The table displays the joint effect of the 1992/93 reforms on the probability of finding employment for women in childbearing age. The associated changes in maternity leave legislation were an extension of the job protection period from 18 to 36 months and an extension of the maximum duration of the pay of maternity benefits (300€ a month) from 18 to 24 months. The joint effect is assumed to have fully shown in 1994, such that treatment is defined as the year 1994, whereas the last year without a change in maternity leave legislation, 1991, is taken as the base period. The sample covers persons aged 45 or younger in SOEP sample A, who do not (yet) have a child. The interaction term of the year of treatment and gender indicates the treatment on the treated as in a difference-in-difference linear probability model. Column (1) covers university graduates in a full-time job. Column (2) covers university graduates in both full-time and part-time jobs. Column (3) displays results for persons without a university degree in full-time jobs, while column (4) displays results for persons without a university degree in both full-time and part-time jobs. Additional control variables include experience in full-time and part-time jobs, the maximum future number of children, and individual worries.

Table 9: REGRESSION RESULTS – WAGES (SELECTION MODEL) (SOEP)

	(1)		(2)		(3)	
	(a)	(b)	(a)	(b)	(a)	(b)
Treat. * gender (D)	-.014 (.024)	-.048 (.100)	.026 (.024)	.056 (.098)	.020 (.026)	-.055 (.116)
Gender (D)	-.173 (.021)***	.016 (.081)	-.170 (.016)***	-.012 (.058)	-.141 (.019)***	.047 (.082)
Year: 1986 (D)	.017 (.014)	-.044 (.066)				
Year: 1987 (D)	.037 (.015)**	.010 (.065)	.019 (.013)	.041 (.054)		
Year: 1991 (D)			.187 (.016)***	.271 (.068)***		
Year: 1994 (D)					.130 (.016)***	-.215 (.072)***
Temp. job (D)	-.103 (.030)***		-.088 (.034)***		-.174 (.040)***	
Age	.028 (.012)**	.309 (.040)***	.001 (.012)	.311 (.040)***	-.016 (.015)	.278 (.050)***
Age sq.	-.0002 (.0002)	-.006 (.0007)	.0003 (.0002)	-.006 (.0007)	.0005 (.0002)**	-.005 (.0008)***
Work hrs./week	.005 (.0006)***		.007 (.0006)***		.009 (.0008)***	
Married (D)	.046 (.013)***	.163 (.065)**	.039 (.012)***	.074 (.066)	.044 (.014)***	-.069 (.083)
Yrs. in unempl.	-.085 (.017)***	-.712 (.054)***	-.056 (.014)***	-.507 (.055)***	-.025 (.014)*	-.333 (.052)***
Yrs. in unempl. sq.	.003 (.001)*	.057 (.009)***	.002 (.001)	.040 (.009)***	.001 (.001)	.019 (.006)***
Educ. = job requ. (D)	-.032 (.013)**		-.032 (.013)**		-.029 (.016)*	
Ind.: serv. (D)	.065 (.017)***		.050 (.022)		.023 (.022)	
Ind.: manuf. (D)	.057 (.015)***		.057 (.016)***		.049 (.021)**	
Ind.: constr. (D)	.030 (.019)		.066 (.019)***		.082 (.023)***	
Ind.: retail (D)	-.029 (.021)		-.051 (.020)**		-.057 (.024)**	
Ind.: publ. serv. (D)	-.058 (.020)***		-.087 (.020)***		-.091 (.025)***	
Training for job	.028 (.006)***		.035 (.006)***		.049 (.007)***	
Birth child 1 (D)		-.684 (.130)***		-.798 (.123)***		-.856 (.154)***
Final no. of children		.121 (.027)***		.148 (.029)***		.192 (.044)***
Mills ratio	.026 (.034)		-.078 (.034)**		-.173 (.045)***	
No. of obs.	6104		5801		3310	
No. of censored obs.	2533		2385		1286	

The table displays the effect of the reforms in maternity leave legislation on wages as results from a Heckman type selection model. A fully interacted model to distinguish effects for new hires does not yield significantly different results. Exclusion restriction: having the first child in the current year and maximum future number of kids. The associated changes in maternity leave legislation took place in 1986, 1988 – 1990, 1992 and 1993. The sample covers persons aged 45 or younger in SOEP sample A, who did not have a child in  $t - 1$ . Column (1) displays results for the 1986/87 treatment as compared to 1985, column (2) shows the results for the 1991 treatment relative to 1987, and column (3) and (4) show the results for the 1992 and 1993 treatments. Wage data are harmonised and imputed data on gross monthly wages, which are provided in EUR. Columns (a) show second stage results (dependent variable: log gross wage), and columns (b) show first stage results (dependent variable: employed).

Table 10: SENSITIVITY ANALYSIS – EMPLOYMENT OPPORTUNITIES (CONTROL GROUP: MEN) (SOEP)

	UNIVERSITY DEGREE				
	86/87	87/88	88/89	89/90	90/91
	(1)	(2)	(3)	(4)	(5)
Gender * Year (D)	-.031 (.053)	.021 (.039)	-.052 (.038)	-.056 (.034)	.050 (.033)
Obs.	675	876	842	815	780

	NO UNIVERSITY DEGREE				
	86/87	87/88	88/89	89/90	90/91
	(1)	(2)	(3)	(4)	(5)
Gender * Year (D)	-.024 (.011)**	-.012 (.008)	.001 (.008)	.009 (.008)	-.013 (.008)*
Obs.	6781	8853	8439	8072	7680

	UNIVERSITY DEGREE							
	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Gender * Year (D)	.097 (.034)***	.036 (.035)	-.024 (.037)	-.021 (.036)	-.019 (.037)	-.052 (.037)	-.012 (.035)	.061 (.034)*
Obs.	763	747	759	768	792	823	834	876

	NO UNIVERSITY DEGREE							
	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Gender * Year (D)	-.024 (.008)***	-.001 (.007)	.003 (.007)	-.009 (.008)	-.014 (.008)*	-.005 (.009)	.008 (.009)	.015 (.009)
Obs.	7364	7101	6845	6614	6335	6033	5703	5316

The table displays the change in the probability of finding a job if previously unemployed compared to persons without a change in labour market status. Major changes in maternity leave legislation took place in January 1986, July 1990, January 1992, and January 1993. The sample covers women in SOEP sample A, who do not (yet) have a child. Treatment is defined as being younger than 40. The table shows the interaction term as of a cross-sectional difference-in-difference linear probability model.

Table 11: SENSITIVITY ANALYSIS – EMPLOYMENT OPPORTUNITIES (CONTROL GROUP: WOMEN AGED 46 OR ABOVE) (SOEP)

	UNIVERSITY DEGREE				
	86/87	87/88	88/89	89/90	90/91
	(1)	(2)	(3)	(4)	(5)
Age < 46 * Year (D)	-.066 (.061)	-.008 (.047)	.045 (.083)	.061 (.075)	.033 (.045)
Obs.	173	227	218	210	198

	NO UNIVERSITY DEGREE				
	86/87	87/88	88/89	89/90	90/91
	(1)	(2)	(3)	(4)	(5)
Age < 46 * Year (D)	-.021 (.011)**	-.021 (.008)***	-.014 (.009)	.004 (.009)	-.010 (.012)
Obs.	2429	3186	3064	2948	2800

	UNIVERSITY DEGREE							
	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age < 46 * Year (D)	.054 (.047)	.006 (.056)	.029 (.060)	.024 (.065)	-.035 (.055)	-.031 (.058)	-.015 (.051)	.032 (.039)
Obs.	193	190	198	206	221	246	265	283

	NO UNIVERSITY DEGREE							
	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age < 46 * Year (D)	-.024 (.012)**	.003 (.010)	.009 (.010)	.0005 (.005)	.002 (.006)	-.020 (.014)	-.019 (.014)	.027 (.015)*
Obs.	2677	2578	2486	2448	2381	2303	2210	2078

The table displays the change in the probability of finding a job if previously unemployed compared to persons without a change in labour market status. Major changes in maternity leave legislation took place in January 1986, July 1990, January 1992, and January 1993. The sample covers women in SOEP sample A, who do not (yet) have a child. Treatment is defined as being younger than 40. The table shows the interaction term as of a cross-sectional difference-in-difference linear probability model.

Table 12: REGRESSION RESULTS – INTENSITY OF JOB SEARCH: REFORM 1986 (MICRO-CENSUS)

	(1)	(2)	(3)	(4)
Intensity of job search (cat.)				
Year: 1987 * gender (D)	-.139 (.063)**	-.176 (.208)		
Gender (D)	.053 (.052)	.048 (.201)	.335 (.146)**	.156 (.530)
Year: 1987 * age ≤ 40 (D)			-.660 (.074)***	-1.023 (.470)**
Age ≤ 40 (D)			.226 (.101)**	.942 (.478)**
Year: 1987 (D)	-1.444 (.055)***	-1.498 (.165)***	-.848 (.071)***	-.681 (.486)
Age	.086 (.029)***	.061 (.163)	.067 (.013)***	.157 (.073)**
Age sq.	-.0009 (.0005)*	-.0001 (.003)	-.0007 (.0002)***	-.002 (.001)*
Married (D)	-.059 (.042)	-.160 (.122)	-.089 (.054)*	-.339 (.190)*
German (D)	.068 (.053)	.299 (.178)*	.028 (.074)	.403 (.226)*
Was fired (D)	.193 (.043)***	.198 (.143)	.069 (.047)	.354 (.199)*
Quit job volunt. (D)	-.037 (.055)	-.231 (.152)	-.033 (.062)	-.275 (.225)
Town size	-.0003 (.004)	.001 (.012)	.006 (.005)	-.020 (.018)
Household head (D)	-.113 (.058)*	-.251 (.214)	-.273 (.156)*	-.173 (.636)
Job re-training (D)	.043 (.106)	-.193 (.228)	-.300 (.141)**	-.486 (.342)
Duration of job re-training (cat.)	-.099 (.032)***	.042 (.058)	.013 (.043)	.088 (.083)
Only search part-time (D)	.020 (.086)	-.219 (.253)	-.106 (.069)	-.370 (.316)
Only search full-time (D)	-.014 (.055)	-.166 (.166)	-.089 (.057)	-.383 (.201)*
Profession: manuf. (D)	.105 (.077)	-.005 (.312)	.085 (.108)	-.010 (.561)
Profession: engineering (D)	.132 (.137)	.272 (.297)	-.008 (.197)	-.326 (.304)
Profession: services (D)	.134 (.076)*	.103 (.198)	.071 (.103)	.043 (.249)
Obs.	4828	488	3691	262

The table displays the effect of the 1986 reforms of maternity leave on the intensity of job search. Lower values indicate a lower intensity of job search. Coefficients are taken from an ordered probit model on the 1991 and 1993 cross sections of the German Microcensus.<sup>a</sup> Only persons aged younger than 41 who do not have children are considered in the sample. The associated change in maternity leave legislation was an extension of the maximum duration of the pay of maternity benefits (300€ a month) and the job protection period from 24 to 36 months. Column (1) displays results for a comparison between men and women in childbearing age without a university degree. Column (2) displays results for a comparison between men and women in childbearing age with a university degree. Column (3) displays results for a comparison between women in childbearing age and women out of childbearing age without a university degree. Column (4) displays results for a comparison between women in childbearing age and women out of childbearing age with a university degree.

<sup>a</sup>Note that the parallel regression assumption is violated in this context as stages of job search are not measured in equal intervals. The use of more sophisticated models, which account for that fact, does not lead to significantly different results.

Table 13: REGRESSION RESULTS – INTENSITY OF JOB SEARCH: REFORM 1992 AND 1993 (MICROCENSUS)

	(1)	(2)	(3)	(4)
Dep. var.: Intensity of job search (cat.)				
Year: 1993 * gender (D)	.025 (.077)	.465 (.223)**		
Gender (D)	.031 (.062)	-.136 (.162)		
Year 1993 * age ≤ 40 (D)			.090 (.080)	.396 (.264)
Age ≤ 40 (D)			-.065 (.103)	-.378 (.322)
Year: 1993 (D)	.195 (.100)*	-.314 (.203)	-.115 (.127)	-.237 (.261)
Age	-.068 (.034)**	.298 (.178)*	-.017 (.014)	.211 (.060)***
Age sq.	.001 (.0006)**	-.004 (.003)	.0003 (.0002)*	-.002 (.0007)***
Married (D)	-.108 (.048)**	.129 (.178)	-.126 (.057)**	.091 (.186)
German (D)	-.031 (.056)	.154 (.178)	.003 (.068)	.048 (.195)
Imm. available for job (D)	.069 (.053)	.005 (.159)	.069 (.052)	.204 (.175)
Was fired (D)	.433 (.045)***	.790 (.149)***	.293 (.043)***	.420 (.145)***
Quit job volunt. (D)	.353 (.059)***	.356 (.192)*	.318 (.061)***	.280 (.241)
Quit job temp. (D)	-.385 (.082)***	-.254 (.287)	-.340 (.088)***	-.786 (.278)***
Town size	-.031 (.016)**	.101 (.052)*	.016 (.016)	-.003 (.060)
Household head (D)	-.031 (.064)	.025 (.211)	-.094 (.072)	.152 (.235)
Job re-training in the past (D)	-.429 (.058)***	.095 (.130)	-.278 (.073)***	.117 (.144)
Duration of job re-training (cat.)	-.029 (.013)**	.045 (.026)*	.011 (.016)	.010 (.031)
Only search full-time (D)	-.072 (.046)	-.167 (.134)	-.071 (.046)	-.264 (.164)
Only search part-time (D)	-.463 (.082)***	-.408 (.315)	-.170 (.056)***	-.515 (.224)**
Profession: manuf. (D)	.129 (.058)**	-.483 (.244)**	.242 (.065)***	-.269 (.424)
Profession: engineering (D)	.193 (.130)	-.123 (.228)	.328 (.159)**	-.158 (.248)
Profession: services (D)	.133 (.058)**	.117 (.148)	.240 (.060)***	.061 (.165)
Obs.	3687	375	3905	324

The table displays the joint effect of the 1992 and 1993 reforms of maternity leave on the intensity of job search. Lower values indicate a lower intensity. Coefficients are taken from an ordered probit model on the 1991 and 1993 cross sections of the German Microcensus.<sup>a</sup> Only persons aged younger than 41 who do not have children are considered in the sample. The associated change in maternity leave legislation was an extension of the maximum duration of the pay of maternity benefits (300€ a month) and the job protection period from 24 to 36 months. Column (1) displays results for a comparison between men and women in childbearing age without a university degree. Column (2) displays results for a comparison between men and women in childbearing age with a university degree. Column (3) displays results for a comparison between women in childbearing age and women out of childbearing age without a university degree. Column (4) displays results for a comparison between women in childbearing age and women out of childbearing age with a university degree.

<sup>a</sup>Note that the parallel regression assumption is violated in this context as stages of job search are not measured in equal intervals. The use of more sophisticated models, which account for that fact, does not lead to significantly different results.