

IZA DP No. 5709

Unintended Effects of a Family-Friendly Law in a Segmented Labor Market

Daniel Fernández-Kranz Núria Rodríguez-Planas

May 2011

Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor

Unintended Effects of a Family-Friendly Law in a Segmented Labor Market

Daniel Fernández-Kranz

IE Business School

Núria Rodríguez-Planas

Universitat Autònoma de Barcelona, MOVE. Barcelona GSE and IZA

Discussion Paper No. 5709 May 2011

IZA

P.O. Box 7240 53072 Bonn Germany

Phone: +49-228-3894-0 Fax: +49-228-3894-180 E-mail: iza@iza.org

Any opinions expressed here are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but the institute itself takes no institutional policy positions.

The Institute for the Study of Labor (IZA) in Bonn is a local and virtual international research center and a place of communication between science, politics and business. IZA is an independent nonprofit organization supported by Deutsche Post Foundation. The center is associated with the University of Bonn and offers a stimulating research environment through its international network, workshops and conferences, data service, project support, research visits and doctoral program. IZA engages in (i) original and internationally competitive research in all fields of labor economics, (ii) development of policy concepts, and (iii) dissemination of research results and concepts to the interested public.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ABSTRACT

Unintended Effects of a Family-Friendly Law in a Segmented Labor Market*

Family-friendly laws may backfire if not all workers with access to the policies use them. Because these policies are costly to the employer, hiring practices may consequently be affected at the detriment of the at-risk population who may end up accessing the policy. We exploit a 1999 Spanish law that granted all workers with children under 7 years the right to work part-time. Most importantly, the law declared a layoff invalid if the worker had previously asked for a work-week reduction due to family responsibilities. Using a difference-indifferences (DD) methodology, we first find evidence that the law increased part-time work among eligible mothers with a permanent contract, but had no effect on eligible fathers or mothers with a temporary contract. This effect is driven by the less-educated women. Then, using both a DD and a DDD approach, we analyze the effects of the law among the at-risk population, i.e., childbearing-aged women with no children under 7. We find that this policy led to the unintended effect of decreasing the likelihood of being employed with a permanent contract among the at-risk high-school graduate women (relative to their male counterpart), while increasing their relative likelihood of having a fixed-term contract job. These findings suggest that, after the law, employers preferred hiring childbearing-aged men under permanent contracts (offering fixed-term contracts to childbearing-aged women).

JEL Classification: J21, J68, J78

Keywords: temporary employment, flexible work arrangement laws, European unemployment

Corresponding author:

Núria Rodríguez-Planas Unitat de Fonaments de l'Anàlisi Econòmica Edifici B Universitat Autònoma de Barcelona 08193 Bellaterra Spain

E-mail: Nuria.Rodriguez@uab.es

*

We are extremely grateful to participants of the workshop "Flexibility in the Labor Market: Boon or Bane" at the Institute for Employment Research in Nuremberg and participants of the seminar at the Universitat d'Alacant for helpful comments. We also thank the extremely valuable suggestions and comments from Marcel Jansen, Juan J. Dolado, Samuel Bentolila, Libertad González, and Virginia Sánchez. Núria Rodríguez-Planas acknowledges financial support from the Spanish ministry of Education and Science (grant SEJ2006-712), the Generalitat de Catalunya (grant SGR2005-712), and Barcelona Graduate School of Economics. Daniel Fernández-Kranz acknowledges financial support from the Spanish ministry of Science and Innovation (grant ECO2009-07237). Finally, Núria Rodríguez-Planas is affiliated to IZA in Bonn, FEDEA in Madrid, MOVE and Barcelona Graduate School in Barcelona, and greatly appreciates their support.

I. Introduction

In the light of the low fertility trends in many industrialized countries, and given the increased relevance of women's labor force participation and their weight in the economic support of their families, the introduction of family-friendly practices have recently received renewed attention from policy makers, practitioners and researchers. Indeed, many governments in most industrialized countries have adopted policies encouraging family-friendly work environments with the objective of promoting gender equality in the workplace, and greater quality care for children and dependents. However, these policies may backfire if not all workers with access to family-friendly policies use them. Given that these policies are costly for the employer, hiring practices may consequently be affected at the detriment of the at-risk population. In this paper, we find evidence that unintended effects may indeed emerge.

The policy under analysis in this paper is the Spanish Law 39/99, implemented on the 5th of November of 1999, in which the government granted all wage and salary workers' the right to work part-time (PT) if they had children under seven years old. The objective of this policy was to facilitate PT work among parents with small children, and to protect their jobs in the event they decided to reduce their work-week schedule to care for their children. An important element of this law is that it declared a layoff invalid if the worker had previously asked for a work-week reduction due to family responsibilities. However, despite this, the policy *de facto* only protected workers with permanent contracts, since the employers could not be forced to renew fixed-term contracts once they expired.

Using cross-sectional data from the 1994 to 2003 Spanish Labor Force Survey (LFS) and a differences-in-differences approach (DD), we first analyze the effectiveness of this law in increasing the rate of PT employment among eligible parents. The

analysis is done by gender and type of contract as the law was only binding if the worker had a permanent contract. The analysis compares the likelihood of PT employment conditional on working of eligible mothers and fathers (the two treated groups) before and after the law. As comparison groups, we use parents with children slightly older than seven. In addition, we allow for different trends between the treated and the comparison groups in case the outcome of interest systematically evolves differently for the treatment and the control groups.

Overall, we find evidence that the law was successful in that it significantly increased the rate of PT work among eligible mothers working with a permanent contract—that is, those with children under seven—as it almost doubled it. However, the law had no effect on eligible fathers or eligible mothers working with a fixed-term contract, corroborating our intuition that, due to economic, social and cultural reasons, mainly mothers in the primary labor market access (or are able to use) the policy. Heterogeneity analysis reveals that this effect is driven by less-educated women. In fact, no effect is found among college graduates.

We then proceed to analyze whether the law had any unintended effect on employment outcomes of the at-risk population, that is, childbearing-aged women who do not have children under seven, using a DD approach. The analysis is done by education level for two reasons. First, the evidence shows that the policy had differential effects across skill groups. Second, each education level faces a distinct labor market. The analysis compares employment outcomes of the at-risk women, which we define as women with no children under seven and between 23 and 45 years old (the treated group), before and after the law. As a comparison group, we use men in

_

¹ This is in line with research on the differential effects of motherhood on earnings—see Taniguchi, 1999; Todd, 2001; Budig and England, 2001; Anderson *et al.*, 2002; Anderson *et al.*, 2003; Amuedo-Dorantes and Kimmel, 2005; Loughren and Zissimopoulus, 2009; Kunze and Kenneth, 2009; and Elwood *et al.*, 2010.

the same age range. In addition, in an alternative specification older individuals are included to control for any possible labor force status changes across genders over time (obtaining a DDD estimator). In both specifications, we allow for different trends between the treated and the comparison groups in case the outcome of interest systematically evolves differently for the treatment and the control groups.

Among the at-risk women with a high-school degree, we find that the law significantly decreased by 18% the likelihood of being employed with a permanent contract, while increasing their likelihood of having a fixed-term contract job by 30%, suggesting that, after the law, employers avoided hiring childbearing-aged women under permanent contracts. This is particularly concerning as more than half (55%) of women between 23 and 45 years in Spain are high-school graduates, implying that the unintended effects of this family-friendly law affected the majority of childbearing-aged women.

Spain is a suitable case to investigate this issue because of the striking segmentation of its labor market. An important dual labor market developed after legislation changes in 1984, resulting in the economy with the highest rate of fixed-term contracts in Europe for the last two decades (over one third of all contracts are fixed-term contracts). This bleak picture of the Spanish labor market—with widespread job precariousness, a high unemployment rate, and lack of access to good PT jobs—, does not make for a family-friendly country (as discussed by de la Rica and Ferrero, 2003; and Esping-Andersen, Güell, and Brodmann, 2007, among others). Thus, understanding the intended and unintended effects of such a law on women's employment outcomes is of highest policy relevance.

The paper is organized as follows. The next section describes the 39/1999 law. Section III presents the data and the descriptive statistics. Section IV analyzes the

effects of the family-friendly policy on the employment outcomes of the eligible population. Section V analyzes the effects of the family-friendly policy on the employment outcomes of the at-risk population. Section VI concludes.

II. The 39 / 1999 Law

On November 5th, 1999, the Spanish Government passed a law to promote the conciliation of work and family life. This law introduces some very important novelties that strengthen the right to flexible work arrangements for certain groups of workers. In particular, it details the conditions under which parents can exercise the right to work PT. As such, it establishes that workers with children under 7 years have the right to ask for a reduction of one third to one half of the usual full-time schedule, with an equivalent reduction in their salary.² This right is extended also to workers with family dependents, for reason of physical or mental disability. The law also establishes that the worker has the right to choose the time slot during the day he or she wants to work and that the firm has to accept this or go to court. Most importantly, the law declared a layoff invalid if the worker had previously asked for a work-week reduction due to family responsibilities, that is, the firm must readmit the worker in his or her previous job and cannot use the alternative of dismissing the worker by compensating her with the statutory severance payment.

It is important to note that although this law declared a layoff invalid if the worker had previously asked for a work-week reduction or a leave of absence due to family responsibilities, it only protected workers with permanent contracts, since employers who did not want to offer reduced work hours to workers with fixed-term contracts only had to wait for their contract to expire to terminate the employment relationship. *De*

² The maximum age of the child was extended from six to eight in 2007.

5

facto, this implies that the law gave rights to reduced work arrangements only to workers with permanent contracts.

Potential Effects of this Family-Friendly Policy

The objective of the policy was to facilitate the conciliation of work and family life for families with children under seven. However, as explained above, our prior is that this law was only binding among workers with permanent contracts. Moreover, given the traditional values of the Spanish society, we suspect that mainly mothers of small children would access the policy of requesting reduced work week to care for their young child.³ In contrast, based on anecdotal evidence, we do not expect fathers of young children to access the policy.⁴ Therefore, we expect the policy to increase the rate of PT work among mothers with children under seven working with a permanent contract, but not for the other eligible groups (mothers with children under 7 years working with a fixed-term contract, and fathers with children under 7 years, regardless of their contract type).⁵

We also expect the law to increase employment in the primary segment of the labor market (that is, the rate of permanent-contract work) for eligible mothers, because this policy protects them against any layoff. A consequence of this law is that it prevents employers from laying-off women once they become mothers if they have requested a

-

³ Spain is a country with traditional values, in which most people believe that it is optimal for young children to spend most of their time during the first few years of their life under their mother's care (Pfau-Effinger, 2006). Despite a recent change in attitudes, child care remains women's main responsibility, and although Spanish men have recently increased the amount of time they spend taking care of their children (Larrañaga *et al.*, 2004), there is still a strong asymmetry in the share of childbearing responsibilities across gender with women spending, on average, 2.7 more hours per day with their children than men (Marí-Klose *et al.*, 2010).

⁴ Given that men tend to have higher earnings than women in Spain, the decision to reduce the work schedule of the lower earning member of the household is also a rational one.

⁵ Other researchers have analyzed the effect of family-friendly programs on the eligible population and they have found that: (1) not all workers have equal access to such family-friendly programs (Deitch & Huffman, 2001); (2) not all employees are equally aware of benefit availability (see Baird and Reynolds, 2004; and Budd and Brey, 2003); and (3) not all employees with access to family-friendly policies are able to use them as some may not be able to afford part-time work, and others may fear negative reprisals if they take a family leave (Budd and Mumford, 2006; and Fernández-Kranz and Rodríguez-Planas, 2010).

work-week reduction. Moreover, employment in the primary segment of the labor market may also increase if mothers—who wanted a reduced work-week to care for their children had to (in the absence of the law) quit their permanent job and find another one in the secondary labor market—, are now able to retain their permanent contract with the reduced work schedule. No such effect ought to be observed among fathers of children under seven if they do not request reduced work-week hours.

It is uncertain, however, whether overall employment for eligible mothers ought to increase after the law. The reason being that the policy may only lead to a substitution between working PT with a fixed-term contract (prior to the law) to working PT with permanent contract (after the law). Whether overall employment increases among eligible mothers will depend on the extent to which, mothers who may have decided to exit the labor market in the primary labor market in the absence of the policy, are induced to remain employed (but with a reduced work schedule) after the family friendly policy is implemented.

In addition, the law could have led to the unintended effect of reducing employment in the primary labor market for the at-risk population, that is, childbearing-aged women with no children under seven (as the policy does not protect them from a layoff), relative to childbearing-aged men (as eligible fathers do not access the new policy rights). If the unintended effect of the law is that employers stop hiring childbearing-aged women for jobs in the primary labor market, we may see that fixed-term contract work increases and permanent contract work decreases for this group relative to other groups.

Finally, we may also observe an increase in employment as new workers need to cover the work-week time reductions taken by mothers of young children. It is unclear whether such increase in employment will be observed among childbearing-aged women or other demographic groups, and whether it will be PT work or full-time work (or the contract type). We shall explore all of these effects empirically.

III. Data

We use data from the second quarter of the 1994 through 2003 Spanish Labor Force Survey (LFS)—we exclude the year 2000 to guarantee a clear cut before and after the law. The Spanish LFS is a quarterly cross-sectional dataset collected by the Spanish Statistical Office that gathers information on demographic characteristics (such as, age, years of education, marital status, and region of residence), employment characteristics (such as current work status, current contract type, current usual and effective hours worked, current PT status, and labor force status last year), and fertility information (births, number and age of children). We focus our analysis on private sector wage and salary workers, and restrict the age of men and women to be between 23 and 64 years old. The reason for dropping workers younger than 23 years old is that we want to eliminate PT work by students (this age restrictions is not unusual in the PT literature see Connolly and Gregory, 2009; or Fernández-Kranz and Rodríguez-Planas, forthcoming). To avoid capturing the effects of the law on those who cared for grandparents, we exclude individuals cohabitating with a grandparent.⁷ restrictions result in a pooled cross-sectional data set with 642,291 observations. Detailed descriptive statistics of the different treated and comparison groups will be discussed in each of the subsections, after we explain the identification strategy for each of the two questions we explore: (1) Whether the law was effective, and (2) whether it had unintended effect on the population at-risk of being eligible.

_

⁶ As is common practice in the research using this dataset, we only use the second quarter to avoid repeated observations. The LFS is carried out every quarter on a sample of around 60,000 households. Each quarter, one sixth of the sample is renewed. However, the dataset does not include a variable that allows identification of individuals along the six consecutive interviews.

⁷ Our results are robust to including such group of individuals.

IV. Was the Law Effective on the Eligible Population?

Identification Strategy

To analyze whether the law was effective in terms of increasing PT work among parents of young children, we estimate whether policy-eligible individuals were more likely to work PT after the law than before relative to the observed change in PT work among similar individuals not affected by the law. PT is self-reported in the LFS and usually implies working less than 30 hours per week. Because of the important gender differences in the share of PT work in Spain, the analysis in this Section is done separately for men and women. Moreover, because of the deep segmentation of the Spanish labor market and the fact that the policy was *de facto* not binding in the secondary labor market, that is, among workers with temporary contracts, the analysis will also be done by contract type.⁸

We compare the likelihood of working PT at survey date in each segment of the labor market among eligible mothers (or fathers), that is, parents whose youngest child was under 7 years after 1999, with the following comparison groups. For mothers, the comparison group is mothers whose youngest child is between 7 and 12 years at survey date; for fathers, the comparison group is fathers whose youngest child is between 7 and 16 years at survey date. Due to small sample sizes among men working PT, we expanded the youngest child's age interval for fathers. However, as sample size is not an issue for women working PT, we prefer mothers whose youngest child is 7 to 12 years as the child's caring needs will resemble more to those of younger children. To guarantee that our control group is not contaminated by the fact that there could be parents who are not eligible for the policy at the time of the interview but may have been in the past, we exclude from our analysis those individuals from the control group

⁸ Since the early 1990s, fixed-term employment represents one third of the Spanish labor force (by far, the highest share among European countries),

who were eligible at some point in the past, even though they are not when we observe them at survey date. We do this because we are concerned that having been eligible for the law may affect their labor force status later on (once the individual is no longer eligible). Moreover, to guarantee that both groups are similar in terms of age, we restrict all men and women in our treatment and comparison groups to be less than 45 years old, which covers most childbearing years. Sensitivity analysis with alternative children's or parents' age groups provides similar results as those shown below. We allowed for different trends (and their square) between the treated and the comparison groups in case the outcome of interest systematically evolves differently for the treatment and the control groups, leading to the DD estimator, which compares changes in the behavior of the treatment groups with changes for the control groups correcting for their different underlying trend. As Meyer, 1995, pointed out omission of a specific trend for the treatment group would bias the estimation of the policy effect.

The main identification condition for the estimation of the policy effect is that, aside from the new law, there are no other shocks in or after the implementation of the law that may affect the differential labor supply decision of parents of children 0 to 6 years relative to parents of children 7 to 12 (net of any underlying trends). In addition to control for province-level unemployment rate and 17 state dummies, we interacted such dummies with trend and trend square to control for any potential policy interactions at the regional level.¹⁰

-

⁹ This restriction reduces by 219 (196) observations the sample of women with a permanent (fixed-term) contract, and by 1648 (439) observations the sample of men with a permanent (fixed-term) contract.

¹⁰ In addition, alternative specifications with variables controlling for regional subsidies to permanent contracts, regional preschool enrollment rates, and tax deductions based on family size have also been estimated and are available in an earlier version of this paper. Results are robust to these alternative specifications.

Using a sample with only mothers (fathers) whose youngest child is between 0 and 12 years (0 and 16 years), we estimate the following linear probability equation for the likelihood of working PT in year t: ¹¹

$$PART - TIME_{it} = \alpha_0 + \alpha_1 CHILD_{0-6i} + \alpha_2 AFTER_i + \alpha_3 (CHILD_{0-6i} *AFTER_i)$$

$$+\alpha_4 t + \alpha_4 t *CHILD_{0-6it} + X_{it} \beta$$

$$(1)$$

where t indexes the year, and i indexes the individual. The variables CHILD_{0-6i} is a dummy variable indicating whether the individual's youngest child is under 7 years old, that is, the treatment group; the variable AFTER_t is a dummy equals 1 after the introduction of the policy (0 otherwise); and the variable (CHILD_{0-6i}*AFTER_t) is a dummy variables equal 1 if the individual is a parent whose youngest child is less than 7 years after the introduction of the policy, and can be interpreted as the "policy variable".

Because the choice of PT work among individuals with small children may differ from those with older children, the coefficient α_1 captures any such differences. The variable AFTER_t controls for any possible changes in the socioeconomic environment that occurred simultaneously to the 1999 law and that may have also affected PT employment among members of the treatment and comparison groups. Thus, the coefficient α_2 captures any differences in PT employment status before and after the implementation of the policy (regardless of the age of the individuals' youngest child). To have an estimate of the effect of the policy on young parents' PT status, we are interested on the coefficient of the interaction (CHILD_{0-6i}*AFTER_t), α_3 , as it captures the relative change in PT status of mothers (fathers) whose youngest child is under 7 years relative to the change observed among mothers of 7 to 12 year olds (fathers of 7 to 16 years old) after the policy. As noted earlier, we include a time trend and its square common to all groups and a specific trend and its square for the treatment group.

¹¹ We use linear probability models in all specifications to make our estimation procedure comparable throughout. We have, however, replicated our analysis using logit models and find very similar results.

The vector X_{ii} contains explanatory variables related to socioeconomic and family characteristics (such as, age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, education dummies, an immigration dummy, a dummy indicating whether the individual was working last year, provinces' unemployment rate, 17 region dummies, and these dummies interacted by the time trend and its squared).

Descriptive Statistics

Table 1 shows the average annual growth rate for several outcome variables for a period of six years before the policy implementation (1994-1999) and for a period of three years after the policy (2001-2003). We distinguish between four groups: mothers and fathers with children under 7 (the treated groups); and mothers with children 7 to 12 years, and fathers with children 7 to 16 years (the comparison groups). Below, we summarize the main findings from Table 1.

Before the policy, fathers with children under seven had higher employment rates (81%) than fathers with children 7 to 16 years (74%). Women's employment rate at the time was considerably lower, ranging between 24% for mothers with children under seven and 28% for mothers of older children. As expected, we observe an increase in both male and female employment rates over the period, as Spain expanded economically. Moreover, such increase was relatively larger for women than for men. However, the raw data does not indicate that there is a differential growth pattern between parents of children under seven and older parents. Now shifting our attention to the likelihood of working with a permanent contract, it is worth highlighting that while more than half of men with children work in the primary labor market, less than one fifth of mothers do so. In addition, the raw data suggest that there is a differential

growth pattern between parents of children under seven and older parents in the likelihood of permanent employment after the law, with parents of small children having a higher likelihood of working under a permanent contract after the law.

PT work is mainly a women's job in Spain and it is concentrated in the secondary labor market. While as much as one third of mothers with young children working in the secondary labor market prior to the law had a PT job, the share among fathers with young children is as low as 4%. Similarly, in the primary labor market, the share of PT is around 17% for mothers and less than 1% for fathers. After the law, the share of PT work increased considerably (by 15%) for mothers of young children in the primary labor market (but remained unchanged for the other three groups). In the secondary labor market, the share of PT work increased for all mothers, but more so for those with small children representing as much as 40% of those workers. Caution is needed thus far, as this analysis is descriptive and there are systematic sociodemographic differences across the different groups (also shown in Table 1) that one needs to control for. The multivariate analysis follows.

Results on Part-Time Employment

Table 2.A presents the main coefficients of interest from estimating equation (1) for women and men, and conditional on working with a permanent and fixed-term contract, respectively. The coefficient of interest is reported in the third row. It measures the effect of the policy on PT work for eligible parents relative to non-eligible parents. Focusing first on the results in the first column of Table 2.A we find that, in the primary labor market, the rate of PT work among eligible mothers increased by 15.2 percentage points after the reform relative to the observed changes in the comparison group- of other mothers (net of any underlying trends). This effect is statistically significant. Since the odds of working PT among mothers of children under 7 years with a

permanent contract prior to the policy is 16.84%, the law was extremely effective in facilitating the conciliation of family and work among women working in the primary labor market. Note that the overall effect of the law on the likelihood of working PT in the primary labor market (the sum of α_2 and α_3) is a statistically significant 5.9 percentage points, which implies that *after* the law, PT among eligible mothers increased by 35%.

As expected, and in contrast with the large effects of the law in the primary labor market, no statistically significant policy effect is found in the secondary labor market (shown in column 3 of Table 2.A). Moreover, the size of the coefficient of interest, α_3 , drops considerably, and changes sign. Similarly, none of the coefficients of the impact of the family-friendly policy are statistically significant for men, regardless of the segment of the labor market they work in (shown in columns 2 and 4 of Table 2.A).

Table 2.B presents estimates of the main coefficient of interest, α_3 , under alternative specifications of equation (1). The second row of Table 2.B presents results from a specification without the trend. In such case, the coefficient, α_3 , for women working with a permanent contract is below 2 percentage points and not statistically significant. Adding a linear trend and the linear trend interacted with the treatment group raises the coefficient, α_3 , to a statistically significant 7 percentage points; and adding a quadratic form to the trends further raises the coefficient to 15 percentage points. ¹² For all the other groups, none of the coefficients are statistically significant. Results shown in Tables 2.A are also robust to dropping data from the 2003 year—in which an important

_

¹² In recent years, Spain has received a massive and unprecedented inflow of female migrants which have increased the local availability of household services and reduced their price. Farré, González, and Ortega, 2010, find that this inflow explains the large increase in the employment rate of women with family responsibilities. As daycare for children under three is scarce and expensive in Spain, it is likely that this inflow has had a greater effect on mothers of the youngest children, explaining the importance of controlling for the trend to prevent biases in our estimates.

tax reform took place—, to modifying the age of parents or children in the comparison groups, and to conditioning on having worked in the previous year¹³

The estimates thus far suggest that the law led to an increase of PT work among mothers with children under 7 working with a permanent contract, but not for those working with a fixed-term contract nor for fathers of small children. Methodologically, we have relied on the differences-in-differences assumption that—in the absence of the law—the PT employment gap (net of linear and quadratic trends) between the treatment and control groups would have remained constant. Because this assumption is not testable, we proceed to carry out placebo estimates, shown in Table 2.C. This is to say that we estimate the same differences-in-differences models for a period in which no change in family-friendly laws took place. We thus use a pre-reform period for such estimates, excluding post-1999 data. None of the coefficients of interest in Table 2.C are statistically significant, supporting the assumption that our previous results on the effects of the family-friendly law were *not* spurious.

Results on Employment and Type of Contract

As explained in Section II, we expect the family-friendly law to increase employment in the primary segment of the labor market (that is, permanent contracts) for eligible mothers, because it protects them against any layoff. Column 1 of Table 3.A presents the effects of the family-friendly policy on employment using the same specification as in equation (1) but having as the independent variable a dummy indicating whether the individual is working and with which type of contract. Columns 2 and 3 show the effects of the law on permanent and fixed-term employment, respectively. Panel A shows the estimates for mothers and Panel B shows the estimates for fathers. As

¹³ Subgroup analysis finds that the effects are stronger among mothers with children under three, which is consistent with them needing more time to take care of their young children, especially given that public schooling for all begins when the child is 3 years old in Spain.

expected, the policy increased by 3.7 percentage points (or 23%) the likelihood of working under a permanent contract for eligible mothers and decreased by 3.9 percentage points (or 12%) their likelihood of working under a fixed-term contract. It is interesting to note, however, that overall we observe no effect of the family-friendly law on employment (shown in Column 1), suggesting that it mainly affected the share of permanent contract workers among the eligible population. As pointed before, in the Spanish labor market most PT jobs are concentrated in the secondary segment of the labor market. This positive association if anything reinforces our result that the familyfriendly law increased the odds of working under a permanent contract for eligible mothers. To further investigate this issue, we estimated a multinomial logit with 6 choices: out-of-the labor force, unemployment, PT fixed-term contract, full-time fixedterm contract, PT permanent contract and full-time permanent contract (PT fixed-term permanent contract being the baseline category), and found that, for women, the familyfriendly policy led to a statistically significant relative increase in the odds of PT permanent contracts among eligible mothers relative to PT fixed-term contracts suggesting that the law led to a substitution between PT work in the secondary and the primary segments of the labor market. Results for men are not statistically significant. These estimates are available from the authors upon request.

Results shown in Panel A of Table 3.A are robust to alternative specifications (shown in Table 3.B) and to the placebo tests (shown in Table 3.C). Finally, Panel B of Table 3.A also shows that the law led to a relative decrease of fixed-term employment among fathers of young children of 3.9 percentage points. Note, however, that this estimate is only statistically significant when the trend and its square is interacted with region dummies.

Effects by Education Level

The analysis thus far has analyzed the average effect of the law on the eligible population. However, the average effect may hide important differences across groups. In what follows, we analyze the effect of the family friendly law by education level. The reason for this is that mothers' decision on how much effort to devote to market activities may differ considerably across skill levels. According to Becker's 1985 and 1991 models, mothers might optimally choose to decline work and effort outside the home after their first child is born (absent a change in marginal utility of income). However, because the marginal utility of income is likely to increase after birth due to the need for increased food, housing, diapers, child care, and the like, whether time or energy outside of home declines depends on the relative changes in marginal utility of income and in the marginal utility of time and energy spent in the home. What this might imply for women with different skill levels is uncertain. For women with little income (such as high-school dropouts), the increased need for food and housing might dominate the pressures to spend time and energy on nurturing, so effort and time spent on market work might actually increase. Higher skilled women might see less of a change in the utility of income and might be more inclined to cut back on time and energy devoted to market work. On the other hand, higher skill women might also be in jobs where the impact of effort on wages is greater, so they might seek to reduce effort somewhat less.

If mothers' response to how much effort to devote in market work differs across skill levels, it is likely that their responses to a family-friendly law, such as the one under analysis in this paper, are also likely to differ by education level. Tables 4 and 5 explore if indeed this is the case.

Table 4 reports whether the law affected the PT rate among eligible mothers in either segment of the labor market by education level. While no statistically significant

effect is found for women working with a fixed-term contract, we observe that the surge in PT work after the family-friendly law is mainly driven by less skilled mothers working with a permanent contract. Indeed, there is no statistically significant effect of the policy for college educated women. For high-school dropouts and graduates, we find that the policy led to an increase in PT work among eligible mothers of 44 and 15.1 percentage points, respectively. Given that the rate of PT work among these groups was 24.13% and 16.99%, this implies that the law was very effective among these two groups. These findings suggests that, in Spain, the opportunity costs of working PT for college educated mothers is very high, as the rate of PT work in the primary labor market for this group is only 11.13%. Moreover, this percentage does not increase after the law. In contrast, this is not the case for less skilled mothers, as the law led to important increases in their PT-work rates.

Table 5 shows the effect of the policy on employment, and permanent and fixed-term employment by education level. In Columns 1 through 6, the only statistically significant effect of the law is on the odds of fixed-term employment for women with a high-school degree. The law led to a decrease in fixed-term employment of 6.12 percentage points (or 69.62%) for this group (while leaving the percentage for the other two groups unaffected). These results suggests that the law prevented mothers with a high-school degree from moving to jobs in the secondary labor market—either because they lost their permanent contract job once they became mothers, or because, in order to reduce work-week hours, they had to switch to a fixed-term contract job. However, in our preferred specification, the effect of the law on permanent employment of high-school graduates is not statistically significant, suggesting that the decrease in

_

¹⁴ Only 8.65% of all eligible mothers *without* a high-school degree worked with a permanent contract. This percentage increases with education level to 16.41% for high-school graduates and to 36.20% for college graduates. In contrast, the percentage of eligible mothers working with a fixed-term contract prior to the law is pretty constant across education level: 7.68% for high-school dropouts; 8.79% for high-school graduates, and 7.69% for college graduates.

secondary employment is not substituted by an increase in primary employment.¹⁵ Moreover, the lack of policy effect on overall employment for this group (shown in Column 1 of Table 5) suggests that the law did not induce women to remain employed (but with a reduced work schedule) instead of exiting employment, or to enter employment with a reduced work schedule. Thus, it appears that the main policy effect on mothers with a high-school degree was to reduce their likelihood of employment in the secondary labor market.

In contrast, no effect on permanent employment is found among high-school dropout women—despite the large increase in PT work. Given that these women are more likely to be in a vulnerable position than those with a high-school degree (only 8.65% of them worked with a permanent contract prior to the law compared with 16.41% of those with a high-school degree), it is likely that the lack of effect in permanent employment is explained by them seeing a higher change in the utility of income after birth, and thus, being less inclined (in the absence of the law) to quit their high-benefits permanent-contract job to reduce market-work hours to care for their child than mothers with a high-school degree. Moreover, because these women must be a very selected group of high school dropouts (as less than 9% of them worked with a permanent contract prior to the law), employers did not laid them off when they became mothers (prior to the law). Thus the main effect of the family-friendly policy is to induce them to switch to PT work but remain in the primary labor market.

¹⁵ When only a linear trend is included the coefficient on permanent employment for mothers with a high school degree becomes a 3.17 statistically significant percentage points increase.

V. Unintended Effects of the Law on Permanent Contract Work

Thus far, we have seen that not all employees with access to this family-friendly law are able to use it as some may not consider necessary the use of PT work (men), and others (women in the secondary labor market) may fear negative reprisals (such as, the non-renewal of their contract) if they request a work-week reduction. In what follows, we explore whether this law led to unintended effects on individuals at risk-of-becoming eligible, in particular, on childbearing-aged women without children under seven. The concern here is that employers may stop granting permanent contracts to the at-risk women, because they may be concerned that as soon as the woman gets a permanent contract she will decide to bear a child, request the reduced work schedule, and in this way she will gain full protection against any possible layoff until her youngest child reaches the age of seven. If this concern exists, we ought to see that fixed-term contract work increases and permanent contract work decreases for the at-risk women relative to their male counterparts.

Identification Strategy

In this Section we explore whether the family-friendly policy led to the unintended effect of reducing the odds of working in the primary labor market for the at-risk women (including both childless women and those with children older than seven) relative to childbearing-aged men (as eligible fathers did not access the new policy rights). Notice that, in this Section, we exclude from the analysis eligible mothers (that is, those with children under seven). Moreover, we also exclude from the analysis (as we did in the previous section) women who are not eligible at the time of the survey but may have been at some point in time to prevent contamination effects.

Because the evidence in the previous Section indicated that the marginal utility of income and the marginal productivity of time and energy spent by mothers differs

across skill levels, leading to different employment choices (before and after the law), we conduct the analysis by education level. To analyze whether the law had such unintended effects we use a differences-in-differences approach (DD) similar to the one described earlier. The difference is that now our treatment group are the at-risk women—defined as women between 23 and 45 years old without children under seven before and after the law—, whereas our control group are men of similar age to the treatment group.¹⁶

We focus on three outcomes of interest: employment, employment with a permanent and with a fixed-term contract, and estimate the following equation using only men and women from our treatment and control group:

$$Y_{it} = \alpha_0 + \alpha_1 WOMAN_i + \alpha_2 AFTER_i + \alpha_3 (WOMAN_i * AFTER_i) + \alpha_8 t + \alpha_9 t * WOMAN_{it} + X_{it} \beta$$
(2)

where the variable WOMAN_i is a dummy variable indicating whether the individual is a woman; the variable AFTER_{it} is a dummy equal 1 after the introduction of the policy (0 otherwise); the variable (WOMAN_i*AFTER_{it}) is a dummy equal 1 if the individual is a women after the introduction of the policy, and can be interpreted as the policy variable. Again, we include interactions between the trend and its squared with the 17 region dummies. Coefficient α_3 gives us the estimated effect of the 1999 family-friendly policy on the at-risk women (relative to their male counterparts).

However, because we are concerned that over this period major changes have occurred leading to important increases in female labor participation, we estimate an alternative specification in which, in addition to young men, we include women and men aged 46 to 64 years old. In this way, older workers enable us to control for any differences across time and gender, not related to the law, obtaining the differences-in-

_

¹⁶ Our results are robust to defining as childbearing women those between 18 and 45 years old. However, to be consistent with the first part of the paper, and because Spanish women tend to delay birth to later years, we preferred showing the results using the age group 23 to 45 years.

differences-in-differences (DDD) estimator. This strategy is similar to the one used by Gruber, 1994; Ruhm, 1998; and Lai and Masters, 2005, among others. For this purpose, we estimate equation (3):

$$Y_{it} = \alpha_{0} + \alpha_{1}WOMAN_{i} + \alpha_{2}AGE_{23_45i} + \alpha_{3}\left(AGE_{23_45i}*WOMAN_{i}\right) + \alpha_{4}AFTER_{i}$$

$$+\alpha_{5}(WOMAN_{i}*AFTER_{i}) + \alpha_{6}(AGE_{23_45i}*AFTER_{i}) + \alpha_{7}(AGE_{23_45i}*WOMAN_{i}*AFTER_{i})$$

$$+\alpha_{3}t + \alpha_{5}t*(AGE_{23_45i}*WOMAN_{i}) + X_{it}'\beta$$

$$(3)$$

where the variable WOMAN_i is a dummy variable indicating whether the individual is a woman; the variable AGE_{23-45i} is a dummy variable indicating whether the individual's age is within the childbearing age; the variable (WOMAN_i * AGE_{23-45i}) is an interaction of the two previous variables; the variable AFTER_{it} is a dummy equal 1 after the introduction of the policy (0 otherwise); the variable (WOMAN_i*AFTER_{it}) is a dummy equal 1 if the individual is a women after the introduction of the policy; the variable (AGE_{23-45i}*AFTER_{it}) is a is a dummy equal 1 if the individual's age is within the childbearing age after the introduction of the policy; the variable (WOMAN_i* AGE_{23-45i} *AFTER_{it}) is a dummy equal 1 if the individual is a childbearing-aged women years after the introduction of the policy. Again, we include interactions between the trend and its squared with the 17 region dummies. Coefficient α_7 will now give us the estimated effect of the 1999 family-friendly policy on the at-risk women.

Descriptive Statistics

Table 6 shows the average annual growth rate for several outcome variables for a period of six years before the policy implementation (1994-1999) and for a period of three years after the policy (2001-2003). We distinguish between childbearing-aged women and men across three different education levels. Below, we summarize the main findings from Table 6.

Before the policy, men between 23 and 45 years had higher employment rates than childbearing-aged women. As expected, this difference decreases with education. The gender gap in employment rates narrows over time as women experience larger increases in their employment rate. This is also monotonic with education. In terms of employment in the primary labor market, men are about twice more likely to have a permanent contract than women. While the odds of working with a permanent contract increases for all groups over time, the raw data indicates that there is a differential growth pattern between high-school dropout women and men, and college graduate women and men, with women having a higher likelihood of working under a permanent contract after the law. However, such differential pattern is not observed among high-school graduates.

Table 6 also shows that the share of PT work among childbearing-aged women decreases with education level, ranging from as much as 33% for high-school dropouts working in the secondary labor market to as little as 8% for college graduates working in the primary labor market. For men, the share of PT work is practically non-existent in the primary labor market (and reaches 12% for college educated men in the secondary labor market). Finally, worth highlighting is that there is a differential effect in the increase in PT work in the secondary labor market between women and men without a college degree. Again, because of systematic socio-demographic differences across the different groups (also shown in Table 6), we proceed with the multivariate analysis.

Results

Table 7.A reports the estimated coefficients from Equation (2) for three separate sub-populations: high-school dropouts, high-school graduates and college graduates. The coefficients of interest are reported in the third row. It measures the effect of the policy

on employment for childbearing-aged women relative to childbearing-aged men (net of any differential trends between the treatment and the comparison group). The specification shown includes the same controls as in equation (1).

Table 7.A shows that the law led to an increase of 2.49 percentage points in employment among high-school graduate childbearing-aged women relative to similar-aged men and that this increase is driven by employment in the secondary labor market. Estimates in Table 7.A reveal that fixed-term contract among high-school childbearing women increased by 4.09 percentage points relative to similar men. Both of these coefficients are statistically significant, robust to alternative specifications (shown in Table 7.B) and to the placebo test (shown in Table 7.C).

Because of concerns that important employment changes across genders and time may be affecting our results, we proceed to estimate equation 3, in which, older workers enable us to control for any gender differences across time, not related to the law. Table 8.A shows the DDD specification, in which, we control for any gender differences that may arise over time by including in the specification men and women older than 45 years old. According to results from Table 8.A, we observe that the law had a statistically significant effect on permanent employment for high-school graduate at-risk women. It decreased permanent employment by 4.31 percentage points among the at-risk women relative to the observed changes in the comparison group (net of any underlying trends). Given that 24% of the at-risk women were employed with a permanent contract prior to the law, this implies that the policy decreased the relative odds of working in the primary labor market by 17.96% for this group. Interestingly, the law led to sizeable and statistically significant increases in permanent employment for childbearing-aged men (a 4.07 percentage points increase) and for older women (a 2.12 percentage points increase), which implies increases of 9.01% and 13.98%,

respectively.¹⁷ Similar estimates with fixed-term contract employment as a LHS variable show that the policy led to a relative increase in the odds of working with a fixed-term contract of 4.83 percentage points (or 29.66%) among the at-risk women—among childbearing-aged men, the law led to a relative decrease of 2.46 percentage points (or 8.87%). These results are robust to alternative specifications (shown in Table 8.B) and placebo test (shown in Table 8.C).

These results highlight that the family-friendly law led employers to drastically reduce their hiring of the at-risk women with a high school degree for jobs in the primary labor market. Given that the law did not lead to differential changes in the overall employment rate for the at-risk women relative to the comparison group (shown in Column 2 of Table 8.A), we suspect that employers basically substituted permanent-contract hiring by fixed-term-contract hiring among this group, and hired childbearing-aged men or older women in permanent contracts instead. Policy wise this is particularly concerning as the at-risk women with a high-school degree in Spain represent as much as 55% of all the at-risk women and 54% of all women between 23 and 45 years old.¹⁸

Not surprisingly, we find no effect on the at-risk women with a college degree. This is most likely due to the fact that eligible mothers with a college did not access the family-friendly law, implying that in essence the family-friendly law was not binding for this group.

VI. Conclusion

Suppose that a government in a country with a segmented labor market adopts a generous family-friendly policy that offers all parents of young children (up to a certain

¹⁷ Prior to the law, 45.14% of childbearing-aged men and 15.02% of women older than 45 years were employed with a permanent.

25

Among this population, high-school dropouts represents 26%, and college graduates 18%.

age) the right for reduced and flexible work arrangements, and that this law also protects eligible parents against dismissal if they use the rights offered by the new policy. If for social and cultural reasons, mainly women request such right, employers will soon realize that offering childbearing-aged women (regardless of whether they have children or not) a permanent contract shields them from a layoff once they become mothers and request the reduced work schedule (until the youngest child reaches the threshold age established by the policy). While the policy also protects mothers working under a fixed-term contract, employers who do not want to offer reduced work hours to workers with fixed-term contracts only have to wait for their contract to expire to terminate the employment relationship. Thus, an unintended consequence of this policy is that employers will prefer hiring men under permanent contract, and mainly offer childbearing-aged women fixed-term contracts.¹⁹ In this paper we analyze whether such unintended effects occurred in Spain after the Government introduced a law in 1999 that declared a layoff invalid if the worker had previously asked for a work-week reduction due to family responsibilities.

Using cross-sectional data from the 1994 to 2003 Spanish Labor Force Survey (LFS) and a differences-in-differences approach, we find that the law was only effective among eligible mothers—that is, those with children under seven—, working in the primary labor market. However, the law had no effect on eligible fathers or eligible mothers working with a fixed-term contract, corroborating our intuition that, due to economic, social and cultural reasons, mainly mothers in the primary labor market access (or are able to use) the policy. Heterogeneity analysis reveals that this effect is driven by less-educated women.

¹⁹ Although the law also shields fathers of young children, if they do not use such program, employers will not discriminate against them offering them jobs in the secondary labor market.

We then use a DD approach to explore whether the law had any unintended effects among non-eligible childbearing-aged women. Indeed, we find that among those with a high-school degree, the law significantly increased their likelihood of having a fixed-term contract job (relative to same age men). When a DDD approach is used to control for gender differences across time, we find evidence that, after the law, employers prefer hiring childbearing-aged men and older women under permanent contracts (compared to non-eligible childbearing-aged women because they may become eligible). We argue that this finding is particularly concerning as it affects the majority of women between 23 and 45 years in Spain. Our paper provides direct evidence of the mediating effect of institutions in general, and of a dual system of job protection in particular, for the effectiveness of family-friendly policies. Overall, it shows that well intended policies may be perverse in a dual labor market.

REFERENCES

Amuedo-Dorantes, C. and J. Kimmel. 2005. "The Motherhood Wage Gap for Women in the United States: The Importance of College and Fertility Delay." *Review of Economics of the Household*, 3(1):17-48.

Anderson, D. J., M. Binder, and K. Krause. 2003. "The Motherhood Wage Penalty Revisited: Experience, Heterogeneity, Work Effort and Work-Schedule Flexibility" Industrial and Labor Relations Review. Vol. 56, No. 2 (January), pp. 273-294.

. 2002. "The Motherhood Wage Gap: Who Pays it and Why?" *American Economic Review Papers and Proceedings*, Vol. 92, No. 3 (May), pp. 354-58.

Baird, C. L., and Reynolds, J. R. 2004. "Employee awareness of family leave benefits:

The effects of family, work, and gender". *Sociological Quarterly*, 45, 325–353.

- Budig J., and P. England. 2001. "The Wage Penalty for Motherhood." *American Sociological Review*, Vol. 66, No. 2, pp. 204-225
- Connolly, S. and M. Gregory. 2009. "The Part-Time Pay Penalty: Earnings Trajectories of British Women." *Oxford Economic Papers*, vol. 61 no. S1: 76-97.
- Deitch, C. H., and Huffman, M. L. 2001. "Family responsive benefits and the two-tiered labor market". In R. Hertz & N. Marshall (Eds.), Working families: The transformation of the American home (pp. 103–130). Berkeley, CA: University of California Press.
- De la Rica S., and M.D. Ferrero. 2003. "The Effect of Fertility on Labour Force Participation: the Spanish Evidence." *Spanish Economic Review*, vol 5 (2).
- Ellwood, D., L., Batchelder, and E. T. Wilde. 2010. "The Mommy Track Divides: The Impact of Childbearing on Wages of Women of Differing Skill Levels." NBER Working Paper No. 16582.
- Farré, L, L. Gonzalez and F. Ortega. 2009. "Immigration, Family Responsibilities and the Labor Supply of Skilled Native Women," IZA Discussion Papers 4265.
- Esping-Andersen G., S. Brodmann, and M. Güell. 2007. "When Fertility is Bargained: Second Births in Denmark and Spain." *European Sociological Review*, 23 (5), 599-613.
- Fernández-Kranz, D., and N. Rodríguez-Planas. *Forthcoming*. "The Part-Time Penalty in a Segmented Labor Market." *Labour Economics*.
- Fernández-Kranz D. and N. Rodríguez-Planas. 2011. "Balancing Family and Work:

 The effects of the Reduced Work Arrangement Law". Working Paper.
- Larrañaga, I., B. Arregui and J. Arpal (2004): «Reproductive or domestic work», Gaceta Sanitaria, 18, supl.1, 31-37.
- Loughren, D., and J. Zissimopoulos. 2008. "Why Wait? The Effect of Marriage and Childbearing on the Wages of Men and Women." Working Paper, RAND Corporation, Santa Monica, CA.

- Meyer, B. D. 1995. "Natural and quasi-experiments in economics", *Journal of Business and Economic Statistics*, Vol. 13: 151-161.
- Pfau-Effinger, B. 2006. "Cultures of Childhood and the Relationship of Care and Employment in European Welfare States." In *Children, Changing Families and Welfare States*, ed. J. Lewis. Cheltenham, UK: Edward Elgar.
- Taniguchi, Hiromi. 1999. "The Timing of Childbearing and Women's Wages," *Journal of Marriage and the Family*, Vol. 61 (November), pp. 1008-1019.

Table 1 Descriptive Statistics, 1994-1999 LFS

	TREA	TMENT		TROL
		less than 7 years		n 7 to 12 years
		old		old [¥]
	Women	Men	Women	Men
Employed pre-Law	24.46	81.11	27.73	74.35
	(42.98)	(39.14)	(44.77)	(43.67)
Employed post-Law	36.61	89.77	39.68	82.54
	(48.18)	(30.31)	(48.93)	(37.96)
Difference	12.16***	8.66***	11.95***	8.19***
	(0.54)	(0.41)	(0.81)	(0.58)
Permanent contract pre-	16.08	54.72	17.50	51.69
Law	(36.73)	(49.78)	(38.00)	(49.97)
Permanent contract	25.68	64.84	24.63	57.43
post-Law	(43.69)	(47.74)	(43.09)	(49.45)
Difference	9.60 ***†††	<i>10.12</i> ***†††	7.13***	<i>5.74</i> ***
	(0.49)	(0.62)	(0.72)	(0.74)
PT rate in primary	16.84	0.74	17.73	0.68
labor market pre-Law	(37.42)	(8.59)	(38.19)	(8.20)
PT rate in primary	19.35	0.44	18.59	0.75
labor market post-Law	(39.51)	(6.61)	(38.91)	(8.64)
Difference	2.52***†	-0.30***	0.86	0.08
33	(0.91)	(0.12)	(1.30)	(0.19)
PT rate in secondary	33.01	2.93	35.02	4.03
labor market pre-Law	(47.03)	(16.85)	(47.71)	(19.65)
PT rate in secondary	39.55	2.84	39.16	3.73
labor market post-Law	(48.91)	(16.63)	(48.84)	(18.96)
Difference	6.53***	-0.08	2.31*	-0.29
33	(1.75)	(0.44)	(2.31)	(0.59)
Age	32.67	34.28	37.10	36.68
	(4.85)	(4.92)	(5.20)	(7.13)
Household head	6.29	91.60	7.45	74.81
	(24.28)	(27.73)	(26.26)	(43.41)
Married	94.60	95.93	88.15	76.23
	(22.60)	(19.76)	(32.32)	(42.57)
Number of children	1.84	1.78	1.84	1.63
	(0.84)	(0.82)	(0.72)	(0.69)
Children younger than 6	100	100	0	0
years High-school dropout	29.92	32.31	44.70	40.50
•	(45.79)	(46.77)	(49.72)	(49.09)
High-school graduate	61.35	59.16	49.05	51.27
3	(48.69)	(49.16)	(50.00)	(49.98)
College graduate or	8.73	8.53	6.25	8.23
above	(28.23)	(27.94)	(24.22)	(27.48)
Immigrant	1.63	1.36	0.98	0.59
6	(12.66)	(11.58)	(9.83)	(7.64)
Province unemployment	21.52	21.50	21.12	21.07
rate	(7.77)	(7.75)	(7.45)	(7.38)
Sample size	40,345	30,208	26,764	26,930

Note.- The numbers in parenthesis are standard deviations. \dagger mean significantly different from comparison's mean at the 90% confidence level. 4 Or with children 7 to 16 years old for men.

Table 2.A Part-Time Employment Effect of the Family-Friendly Law on the Eligible Population

<u>Treatment</u>: Parents with Small Children. <u>Control</u>: Parents with Older Children

<u>LFS 1994-2003</u>

	Working with a Pe	ermanent contract	Working with a	fixed-term contract
	Women	Men	Women	Men
Child <7	-0.0429*	0.000149	0.0528	0.00931
	(0.0247)	(0.00315)	(0.0441)	(0.0118)
Post 1999	-0.0923***	-0.00362	0.103*	0.00239
	(0.0353)	(0.00506)	(0.0605)	(0.0171)
Post 1999	0.152***	0.000345	-0.0928	-0.00797
* child< 7	(0.0423)	(0.00569)	(0.0775)	(0.0200)
Trend	-0.0124	-0.0228	-0.0137	0.00582
	(0.0838)	(0.0219)	(0.114)	(0.0277)
Trend* child<7	0.00492	0.00143	-0.00369	-0.000296
	(0.00752)	(0.00166)	(0.0102)	(0.00252)
Trend square	0.0291**	1.14e-05	-0.0382*	-0.00705
	(0.0119)	(0.00143)	(0.0215)	(0.00535)
Trend square*	-0.00457***	-5.21e-05	0.00476*	0.000760
child<7	(0.00142)	(0.000157)	(0.00258)	(0.000627)
Observations	16,077	42,963	8,698	19,802
Post 1999 + Post 1999 * child<7	0.0593** (0.0239)	-0.0032 (0.0028)	0.0103 (0.0496)	-0.0055 (0.0109)

Note: Additional controls include age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, education dummies, an immigration dummy, a dummy indicating whether the individual was working the previous year, provinces' unemployment rate, 17 region dummies, and these 17 dummies interacted by the time trend and its squared. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 2.B. Sensitivity Tests. Part-Time Employment Effect of the Family-Friendly Law, <u>Treatment</u>: Parents with Small Children. <u>Control</u>: Parents with Older Children LFS 1994-2003

	Working with a Po	ermanent contract	Working with a fi	ixed-term contract
	Women	Men	Women	Men
1. Raw	0.0166	-0.00381*	0.0240	0.00217
	(0.0159)	(0.00220)	(0.0290)	(0.00738)
2. Controls but no	0.0166	-0.00295	0.0166	0.00318
trend				
	(0.0155)	(0.00210)	(0.0286)	(0.00723)
3. Plus linear trend	0.0688**	-0.000511	0.00325	0.00861
	(0.0287)	(0.00464)	(0.0511)	(0.0134)
4. Plus trend regional	0.0667**	-0.000502	0.00425	0.00884
Interactions	(0.0287)	(0.00464)	(0.0511)	(0.0135)
5. Controls + squared	0.154***	0.000306	-0.101	-0.00767
Trend	(0.0422)	(0.00569)	(0.0786)	(0.0199)
6. Plus trend regional	0.152***	0.000345	-0.0928	-0.00797
Interactions	(0.0423)	(0.00569)	(0.0775)	(0.0200)
Observations	16,077	42,963	8,698	19,802

Note: Except for row 1, controls include age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, education dummies, an immigration dummy, a dummy indicating whether the individual was working the previous year, provinces' unemployment rate, and 17 region dummies. In addition, in rows 4 and 6, these 17 dummies are interacted by the time trend (row 4) and the trend and its squared (row 6).

Table 2.C Placebo Tests. Part-Time Employment Effect of the Family-Friendly Law, Treatment: Parents with Small Children. Control: Parents with Older Children LFS 1994-1999

	Working with a P	ermanent contract	Working with a f	ixed-term contract
	Women	Men	Women	Men
Child <7	-0.0815**	-0.00629	0.0872	0.0450**
	(0.0358)	(0.00497)	(0.0668)	(0.0175)
Post 1997	0.0280	-0.00270	-0.0178	0.00281
	(0.0267)	(0.00302)	(0.0468)	(0.0116)
Post 1997	-0.0177	0.00303	0.0156	0.0134
* child< 7	(0.0353)	(0.00479)	(0.0617)	(0.0139)
Trend	0.0825	-0.0383	-0.209	0.0369
	(0.210)	(0.0485)	(0.291)	(0.0662)
Trend* child<7	-0.0103	0.00338	0.0287	-0.00542
	(0.0301)	(0.00610)	(0.0444)	(0.00831)
Trend square	0.0521**	0.00544	-0.0558	-0.0320***
	(0.0238)	(0.00340)	(0.0440)	(0.0108)
Trend square*	-0.00724**	-0.000966*	0.00666	0.00388***
child<7	(0.00323)	(0.000499)	(0.00567)	(0.00142)
Observations	10,370	29,749	5,939	14,505

Note: Same controls as in Table 2.A.

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 3.A Employment Effect of the Family-Friendly Law,

<u>Treatment</u>: Parents with Small Children. <u>Control</u>: Parents with Older Children

<u>LFS 1994-2003</u>

		Panel A: Wome	en	Panel B: Men				
	Employment	Permanent employment	Fixed-term employment	Employment	Permanent employment	Fixed-term employment		
Child <7	-0.0138	0.0248***	-0.0387***	0.0253**	-0.0428***	0.0682***		
	(0.00891)	(0.00843)	(0.00848)	(0.0104)	(0.0126)	(0.0125)		
Post 1999	-0.00379	-0.0221	0.0183	-0.0131	-0.0284*	0.0153		
	(0.0139)	(0.0136)	(0.0146)	(0.0120)	(0.0157)	(0.0163)		
Post 1999	-0.00175	0.0368**	-0.0385**	-0.0179	0.0213	-0.0392*		
* child< 7	(0.0176)	(0.0168)	(0.0173)	(0.0150)	(0.0212)	(0.0215)		
Trend	0.00917	0.00586	0.00330	0.00706	0.00106	0.00600		
	(0.0130)	(0.0113)	(0.0109)	(0.0259)	(0.0270)	(0.0304)		
Trend* child<7	-0.000842	-0.000134	-0.000708	-0.00127	-0.000140	-0.00113		
	(0.00125)	(0.00108)	(0.00106)	(0.00227)	(0.00241)	(0.00266)		
Trend square	-0.000282	-0.00201	0.00173	-0.00535	0.0191***	-0.0244***		
	(0.00464)	(0.00445)	(0.00454)	(0.00459)	(0.00591)	(0.00595)		
Trend square*	-0.000186	-0.000237	5.14e-05	0.000558	-0.00166**	0.00222***		
child<7	(0.000584)	(0.000564)	(0.000583)	(0.000515)	(0.000700)	(0.000709)		
Observations	91,238	91,238	91,238	78,551	78,551	78,551		
Post 1999 +	-0.0055	0.0146	-0.0201	-0.03103***	-0.00710	-0.0239*		
Post 1999 *	(0.0110)	(0.0100)	(0.0095)	0.0095	0.0457	0.0144		
child<7								

Note: Additional controls include age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, education dummies, an immigration dummy, a dummy indicating whether the individual was working the previous year, provinces' unemployment rate, 17 region dummies, and these 17 dummies interacted by the time trend and its squared.

Table 3.B. Sensitivity Tests. Employment Effects of the Family-Friendly Law, Treatment: Parents with Small Children. Control: Parents with Older Children LFS 1994-2003

		Panel A: Wom	en	Panel B: Men				
	Employment	Permanent employment	Fixed-term employment	Employment	Permanent employment	Fixed-term employment		
1. Raw	0.00207	0.0246***	-0.0226***	0.00468	0.0438***	-0.0391***		
	(0.00970)	(0.00870)	(0.00694)	(0.00707)	(0.00969)	(0.00845)		
2. Controls but no	-0.00607	0.0314***	-0.0375***	-0.00590	-0.0151	0.00923		
trend								
	(0.0109)	(0.0103)	(0.0105)	(0.0109)	(0.0143)	(0.0144)		
3. Plus linear trend	-0.00607	0.0314***	-0.0375***	-0.00590	-0.0151	0.00923		
	(0.0109)	(0.0103)	(0.0105)	(0.0109)	(0.0143)	(0.0144)		
4. Plus trend	-0.00607	0.0314***	-0.0375***	-0.00590	-0.0151	0.00923		
regional								
Interactions	(0.0109)	(0.0103)	(0.0105)	(0.0109)	(0.0143)	(0.0144)		
5. Controls +	-0.00629	0.0418***	-0.0481***	-0.00765	-0.00642	-0.00122		
squared trend								
•	(0.0137)	(0.0128)	(0.0127)	(0.0125)	(0.0177)	(0.0177)		
6. Plus trend	-0.00175	0.0368**	-0.0385**	-0.0179	0.0213	-0.0392*		
regional								
Interactions	(0.0176)	(0.0168)	(0.0173)	(0.0150)	(0.0212)	(0.0215)		
Observations	91238	91238	91238	78551	78551	78551		

Note: Except for row 1, controls include age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, education dummies, an immigration dummy, a dummy indicating whether the individual was working the previous year, provinces' unemployment rate, and 17 region dummies. In addition, in rows 4 and 6, these 17 dummies are interacted by the time trend (row 4) and the trend and its squared (row 6).

Table 3.C Placebo Test. Employment Effects of the Family-Friendly Law, Treatment: Parents with Small Children. Control: Parents with Older Children LFS 1994-1999

		Panel A: Wom	en		Panel B: Men			
	Employment	Permanent employment	Fixed-term employment	Employment	Permanent employment	Fixed-term employment		
Child <7	-0.00783	0.0236**	-0.0314***	0.0214	-0.0277	0.0491***		
	(0.0127)	(0.0119)	(0.0118)	(0.0164)	(0.0189)	(0.0185)		
Post 1997	-0.000218	-0.00172	0.00151	-0.00954	-0.0109	0.00138		
	(0.00934)	(0.00878)	(0.00923)	(0.0103)	(0.0118)	(0.0120)		
Post 1997	0.0230*	0.00784	0.0152	0.00437	3.21e-05	0.00434		
* child< 7	(0.0120)	(0.0111)	(0.0116)	(0.0141)	(0.0167)	(0.0167)		
Trend	0.0476*	0.0241	0.0236	-0.0782	0.0490	-0.127*		
	(0.0281)	(0.0249)	(0.0253)	(0.0600)	(0.0590)	(0.0660)		
Trend* child<7	-0.00714*	-0.00310	-0.00404	0.0131	-0.00691	0.0200**		
	(0.00384)	(0.00351)	(0.00356)	(0.00829)	(0.00818)	(0.00908)		
Trend square	-0.00270	-0.00106	-0.00164	-0.00355	0.0106	-0.0141		
_	(0.00846)	(0.00784)	(0.00791)	(0.0105)	(0.0122)	(0.0120)		
Trend square*	-0.000682	-0.000693	1.03e-05	0.000137	-0.000466	0.000603		
child<7	(0.00114)	(0.00105)	(0.00107)	(0.00132)	(0.00159)	(0.00158)		
Observations	67109	67109	67109	57138	57138	57138		

Note: Same controls as in Table 3.A.

Table 4. Part-Time Employment Effects, By Education Level **Treatment: Parents with Small Children.** Control: Parents with Older Children LFS 1994-2003

VARIABLES	Working	with a Permanent	t contract	Worki	ng with a fixed-te	rm contract
	HS dropout	HS graduate	College	HS dropout	HS graduate	College
Child <7	-0.166***	-0.0444	0.0434	0.00897	0.119**	-0.112
	(0.0573)	(0.0315)	(0.0526)	(0.0723)	(0.0591)	(0.230)
Post 1999	-0.205**	-0.106**	0.118	0.147	0.0493	0.462*
	(0.0831)	(0.0425)	(0.0760)	(0.103)	(0.0778)	(0.261)
Post 1999	0.440***	0.151***	-0.0947	-0.00630	-0.106	-0.414
* child< 7	(0.131)	(0.0513)	(0.0861)	(0.140)	(0.0967)	(0.302)
Trend	-0.238	0.100	-0.758**	0.227	0.0689	-0.411***
	(0.169)	(0.0846)	(0.350)	(0.168)	(0.174)	(0.129)
Trend* child<7	0.0309	-0.00339	0.0529*	-0.0272*	-0.0106	0.0279**
	(0.0188)	(0.00791)	(0.0302)	(0.0146)	(0.0152)	(0.0128)
Trend square	0.102***	0.0299**	-0.0219	-0.00943	-0.0705**	-0.00650
•	(0.0318)	(0.0150)	(0.0230)	(0.0364)	(0.0281)	(0.0966)
Trend square*	-0.0144***	-0.00478***	0.00368	0.00111	0.00785**	0.00543
child<7	(0.00409)	(0.00177)	(0.00266)	(0.00441)	(0.00333)	(0.0104)
Observations	3151	10140	2786	2683	5293	722
Post 1999 +	.2356413**	.0446622	.0229352	.1410784	0569321	.0478262
	.0997364	.0297586	.0425192	.096701	.0591036	.1505344
Post 1999 * child<7				•		

Additional controls include age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, an immigration dummy, a dummy indicating whether the individual was working the previous year, provinces' unemployment rate, 17 region dummies, and these 17 dummies interacted by the time trend and its squared.

Table 5. Employment Effects of the Family Friendly Law on Eligible Women, By Education Level Treatment: Parents with Small Children. Control: Parents with Older Children LFS 1994-2003

		Employi	nent	Per	manent employn	nent	Fixed-t	erm employment	
	HS dropout	HS graduate	College	HS dropout	HS graduate	College	HS dropout	HS graduate	College
Child <7	-0.0273**	-0.00871	0.000240	0.0114	0.0344***	0.0294	-0.0388***	-0.0431***	-0.0292
	(0.0129)	(0.0133)	(0.0373)	(0.0114)	(0.0124)	(0.0406)	(0.0123)	(0.0127)	(0.0325)
Post 1999	-0.0214	0.0123	-0.0217	-0.0204	-0.0216	-0.0181	-0.00101	0.0339*	-0.00358
	(0.0229)	(0.0192)	(0.0433)	(0.0221)	(0.0178)	(0.0534)	(0.0244)	(0.0191)	(0.0533)
Post 1999	0.0495	-0.0335	0.0430	0.0379	0.0285	0.0462	0.0116	-0.0621***	-0.00321
* child< 7	(0.0318)	(0.0231)	(0.0532)	(0.0279)	(0.0214)	(0.0625)	(0.0315)	(0.0222)	(0.0595)
Trend	-0.0116	0.0341*	-0.0771	-0.0117	0.0237	-0.00276	4.97e-05	0.0105	-0.0743
	(0.0133)	(0.0207)	(0.101)	(0.0127)	(0.0187)	(0.0502)	(0.0114)	(0.0162)	(0.0913)
Trend*	0.000739	-0.00271	0.00577	0.00124	-0.00152	-0.000309	-0.000501	-0.00119	0.00608
child<7									
	(0.00137)	(0.00193)	(0.00926)	(0.00123)	(0.00175)	(0.00502)	(0.00117)	(0.00154)	(0.00827)
Trend square	0.00924	-0.00519	-0.00216	0.000552	-0.00598	-0.000566	0.00869	0.000792	-0.00159
_	(0.00754)	(0.00646)	(0.0169)	(0.00663)	(0.00611)	(0.0188)	(0.00736)	(0.00626)	(0.0164)
Trend	-0.00173*	0.000628	-0.000615	-0.000716	0.000262	-0.000615	-0.00101	0.000366	2.29e-07
square*									
child<7	(0.00101)	(0.000783)	(0.00192)	(0.000889)	(0.000744)	(0.00220)	(0.000999)	(0.000768)	(0.00206)
Observations	29701	53545	7992	29701	53545	7992	29701	53545	7992

Table 6
Descriptive Statistics of Non-Eligible Childbearing Aged Women Prior to the Law, 1994-1999 LFS

	High-school	dropouts		ol graduates	College gra	duates
	Women	Men	Women	Men	Women	Men
Employed pre-	25.29	64.17	41.52	71.75	43.27	61.05
Law	(43.47)	(47.95)	(49.76)	(45.02)	(49.55)	(48.77)
Employed post-	36.78	73.62	55.00	82.40	60.81	74.55
Law	(48.22)	(44.07)	(48.75)	(38.08)	(48.82)	(43.56)
Difference	11.49***††	9.45***	13.48***†††	10.64***	17.54***†††	13.50***
33	(0.66)	(0.55)	(0.44)	(0.30)	(0.77)	(0.71)
Permanent	14.84	35.89	24.08	45.14	23.63	43.99
contract pre-Law	(35.55)	(47.97)	(42.76)	(49.76)	(42.45)	(49.64)
Permanent	21.07	39.07	34.39	56.09	38.41	55.82
contract post-Law	(40.78)	(48.79)	(47.50)	(49.63)	(48.64)	(49.66)
Difference	6.23***†††	3.18***	10.31***	10.94***	14.78***†††	11.83***
_ 9,5	(0.58)	(0.62)	(0.42)	(0.38)	(0.77)	(0.82)
PT rate in	22.79	0.64	11.33	1.02	8.36	1.96
primary labor	(41.95)	(8.01)	(31.70)	(10.07)	(27.68)	(13.96)
market pre-Law	(1150)	(0.01)	(811,0)	(10.07)	(27.00)	(12.50)
PT rate in	21.57	0.84	11.90	0.95	7.13	1.99
primary labor	(41.14)	(9.15)	(32.38)	(9.70)	(25.73)	(13.96)
market post-Law	(11.11)	(5.13)	(32.30)	(5.70)	(23.73)	(13.70)
Difference	-1.22	0.20	0.57	-0.07	-1.23	0.03
Digjerence	(1.23)	(0.18)	(0.51)	(0.10)	(0.82)	(0.30)
PT rate in	32.70	3.01	23.12	4.73	22.25	12.07
secondary labor	(46.92)	(17.09)	(42.16)	(21.22)	(41.60)	(32.58)
market pre-Law	(.0.,2)	(17.05)	(.2.10)	(=1:==)	(11.00)	(82.88)
PT rate in	33.53	2.22	25.16	4.66	23.72	11.40
secondary labor	(47.23)	(14.74)	(43.39)	(21.08)	(42.54)	(31.79)
market post-Law	(17.23)	(1, 1)	(13.37)	(21.00)	(12.31)	(31.77)
Difference	0.83††	-0.79**	2.03**††	-0.07	1.47	-0.67
Бујстенее	(1.78)	(0.33)	(0.89)	(0.31)	(1.48)	(1.15)
Age	38.14	35.71	31.79	31.39	29.23	31.10
Age	(5.83)	(6.49)	(6.77)	(6.11)	(5.82)	(6.22)
Household head	7.04	60.20	7.28	48.05	7.06	37.840
Household liead	(25.59)	(48.95)	(25.98)	(49.96)	(25.61)	(48.50)
Married	77.56	64.42	50.89	50.89	24.93	37.56
Mairieu	(41.72)	(47.88)	(49.99)	(50.00)	(43.26	(48.43)
Number of	1.08	1.08	0.60	0.72	0.29	0.58
children	(1.01)	(1.12)	(0.85)	(0.90)	(0.64)	(0.89)
Children younger	(1.01)	27.34	(0.83)	25.85	(0.04)	19.61
than 6 years	U	(44.57)	Ü	(43.78)	Ü	(39.70)
Immigrant	1.11	1.73	1.07	0.97	1.79	237
minigi ant	(10.50)	(13.05)	(10.27)	(9.78)	(13.27)	(15.22)
Province	22.02	22.52	20.31	20.42	19.86	19.93
	(7.16)	(7.42)	(6.64)	(6.75)	(6.22)	(6.22)
unemployment rate	(7.10)	(1.44)	(0.04)	(0.73)	(0.22)	(0.22)
Sample size	31,892	36,354	53,391	71,964	15,719	14,678

Note.- The numbers in parenthesis are standard deviations. † mean significantly different from comparison's mean at the 90% confidence level.

Table 7.A Differences in Differences Employment Effects, By Education Level

<u>Treatment</u>: Childbearing-Aged Women without Children Under Seven, <u>Control</u>: Childbearing-Aged Men

<u>LFS 1994-2003</u>

				Permanent contract								
VARIABLES		Employi	nent	Pe	rmanent employ	ment	Fixed-	Fixed-term employment				
	HS dropout	HS graduate	College	HS dropout	HS graduate	College	HS dropout	HS graduate	College			
Woman	-0.0869***	-0.0748***	-0.0657***	-0.0418***	-0.0266***	-0.0360**	-0.0451***	-0.0482***	-0.0297*			
	(0.00944)	(0.00781)	(0.0154)	(0.00962)	(0.00804)	(0.0150)	(0.0104)	(0.00852)	(0.0161)			
Post 1999	-0.0137	-0.0300***	-0.00877	-0.0127	-0.00497	0.0313**	-0.00105	-0.0250***	-0.0400**			
	(0.0118)	(0.00674)	(0.0144)	(0.0142)	(0.00876)	(0.0158)	(0.0156)	(0.00911)	(0.0168)			
Post 1999*	-0.0178	0.0249**	0.0210	-0.00807	-0.0160	0.0143	-0.00977	0.0409***	0.00671			
Woman	(0.0168)	(0.0110)	(0.0215)	(0.0186)	(0.0125)	(0.0225)	(0.0201)	(0.0131)	(0.0242)			
Trend	-0.00399	0.00958	-0.0562	-0.00311	0.0149	-0.0304	-0.000878	-0.00530	-0.0258			
	(0.0201)	(0.0152)	(0.0377)	(0.0188)	(0.0152)	(0.0331)	(0.0215)	(0.0171)	(0.0411)			
Trend square	-0.000145	-0.00127	0.00485	-0.000390	-0.00148	0.00293	0.000245	0.000212	0.00192			
•	(0.00181)	(0.00131)	(0.00314)	(0.00170)	(0.00133)	(0.00287)	(0.00196)	(0.00148)	(0.00340)			
Trend*	-0.00971**	-0.00745**	0.00908	0.0107**	-0.00149	-0.00678	-0.0204***	-0.00595	0.0159**			
Woman	(0.00447)	(0.00332)	(0.00657)	(0.00479)	(0.00360)	(0.00668)	(0.00518)	(0.00376)	(0.00711)			
Trend squared*	0.00115**	0.000577	-0.000618	-0.000562	0.000170	0.000555	0.00171***	0.000406	-0.00117			
*women	(0.000540)	(0.000362)	(0.000708)	(0.000596)	(0.000408)	(0.000745)	(0.000647)	(0.000425)	(0.000784)			
Observations	91,260	192,010	50,215	91,260	192,010	50,215	91,260	192,010	50,215			

Note: Additional controls include age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, an immigration dummy, a dummy indicating whether the individual was working the previous year, provinces' unemployment rate, 17 region dummies, and these 17 dummies interacted by the time trend and its squared.

Table 7.B Sensitivity Tests. Differences in Differences Employment Effects, By Education Level Treatment: Childbearing-Aged Women without Children Under Seven, Control: Childbearing-Aged Men LFS 1994-2003

						Permane	nt contract		
VARIABLES		Employr	nent	Pe	rmanent employ	ment	Fixed-term employment		
	HS dropout	HS graduate	College	HS dropout	HS graduate	College	HS dropout	HS graduate	College
1. Raw	0.0204**	0.0284***	0.0404***	0.0305***	-0.00632	0.0295***	-0.0101	0.0347***	0.0109
	(0.00861)	(0.00533)	(0.0105)	(0.00846)	(0.00568)	(0.0112)	(0.00769)	(0.00494)	(0.00909)
2. Controls but no	0.00577	0.0230***	0.0303***	0.0175**	-0.0134***	0.0142*	-0.0118	0.0364***	0.0161*
trend									
	(0.00613)	(0.00407)	(0.00809)	(0.00684)	(0.00457)	(0.00834)	(0.00735)	(0.00478)	(0.00886)
3. Plus linear trend	0.00965	0.0370***	0.0124	-0.0216*	-0.0127	0.0263	0.0313**	0.0497***	-0.0139
	(0.0111)	(0.00809)	(0.0163)	(0.0119)	(0.00880)	(0.0163)	(0.0128)	(0.00925)	(0.0177)
4. Plus trend	0.00920	0.0369***	0.0124	-0.0206*	-0.0126	0.0260	0.0298**	0.0495***	-0.0137
regional									
Interactions	(0.0111)	(0.00809)	(0.0163)	(0.0118)	(0.00880)	(0.0162)	(0.0127)	(0.00924)	(0.0177)
5. Controls +	-0.0179	0.0248**	0.0209	-0.00684	-0.0160	0.0140	0.00601	0.0412***	0.00103
squared trend									
•	(0.0168)	(0.0110)	(0.0216)	(0.0187)	(0.0125)	(0.0225)	(0.0188)	(0.0127)	(0.0236)
6. Plus trend	-0.0178	0.0249**	0.0210	-0.00807	-0.0160	0.0143	-0.00977	0.0409***	0.00671
regional									
Interactions	(0.0168)	(0.0110)	(0.0215)	(0.0186)	(0.0125)	(0.0225)	(0.0201)	(0.0131)	(0.0242)
Observations	91,260	192,010	50,215	91,260	192,010	50,215	91,260	192,010	50,215

Note: Except for row 1, controls include age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, an immigration dummy, a dummy indicating whether the individual was working the previous year, provinces' unemployment rate, and 17 region dummies. In addition, in rows 4 and 6, these 17 dummies are interacted by the time trend (row 4) and the trend and its squared (row 6). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 7.C Placebo Test: Differences in Differences Employment Effects, By Education Level <u>Treatment</u>: Childbearing-Aged Women without Children Under Seven, <u>Control</u>: Childbearing-Aged Men LFS 1994-1999

				Permanent contract							
VARIABLES	Employment			Permanent employment			Fixed-term employment				
	HS dropout	HS graduate	College	HS dropout	HS graduate	College	HS dropout	HS graduate	College		
Woman	-0.110***	-0.0731***	-0.0944***	-0.0444***	-0.0515***	-0.0187	-0.0651***	-0.0216	-0.0757***		
	(0.0139)	(0.0125)	(0.0246)	(0.0138)	(0.0126)	(0.0239)	(0.0148)	(0.0132)	(0.0255)		
Post 1997	0.00936	-0.00626	0.0193	-0.00572	0.00153	-0.00719	0.0151	-0.00779	0.0265*		
	(0.00994)	(0.00683)	(0.0141)	(0.0103)	(0.00754)	(0.0144)	(0.0113)	(0.00787)	(0.0148)		
Post 1997*	0.00266	-0.00738	-0.0297	0.0148	-0.00222	0.00481	-0.0121	-0.00516	-0.0345		
Woman	(0.0129)	(0.0102)	(0.0208)	(0.0128)	(0.0106)	(0.0202)	(0.0141)	(0.0111)	(0.0219)		
Trend	-0.103**	-0.0111	-0.0202	-0.00415	0.00117	0.00957	-0.0991**	-0.0122	-0.0297		
	(0.0434)	(0.0355)	(0.0959)	(0.0380)	(0.0349)	(0.0790)	(0.0423)	(0.0394)	(0.0975)		
Trend square	0.0158***	0.00243	0.000154	0.000711	0.000535	-0.00133	0.0151**	0.00189	0.00149		
•	(0.00612)	(0.00503)	(0.0131)	(0.00524)	(0.00480)	(0.0105)	(0.00599)	(0.00544)	(0.0128)		
Trend*	0.0112	-0.00363	0.0392**	0.0190**	0.0171**	-0.0146	-0.00776	-0.0208**	0.0538***		
Woman	(0.00898)	(0.00784)	(0.0158)	(0.00898)	(0.00796)	(0.0153)	(0.00970)	(0.00837)	(0.0164)		
Trend squared*	-0.00214*	0.000275	-0.00391**	-0.00236*	-0.00247**	0.00149	0.000222	0.00275***	-0.00539**		
*women	(0.00121)	(0.000977)	(0.00199)	(0.00123)	(0.00101)	(0.00193)	(0.00132)	(0.00106)	(0.00210)		
Observations	68246	125355	30397	68246	125355	30397	68246	125355	30397		

Note: Same controls as in Table 7.A.

Table 8.A Differences in Differences in Differences Estimates
Employment Effects of the Family Friendly Law on Non-Eligible Childbearing-Aged Women,
By Education Level, LFS 1994-2003

VARIABLES	Employment			Permanent employment			Fixed-term employment		
	HS dropout	HS graduate	College	HS dropout	HS graduate	College	HS dropout	HS graduate	College
Woman	-0.0396***	-0.107***	-0.0671***	-0.0267***	-0.106***	-0.0810***	-0.0129***	-0.00124	0.0140*
	(0.00236)	(0.00419)	(0.00915)	(0.00250)	(0.00466)	(0.00951)	(0.00239)	(0.00376)	(0.00782)
age_23_45	0.0165***	-0.0493***	-0.0741***	-0.0226***	-0.0805***	-0.0749***	0.0391***	0.0312***	0.000870
	(0.00381)	(0.00437)	(0.00830)	(0.00423)	(0.00518)	(0.00927)	(0.00429)	(0.00439)	(0.00745)
age_23_45*	-0.0608***	0.0248***	-0.0119	0.0144**	0.0811***	0.0327**	-0.0752***	-0.0564***	-0.0446**
Woman	(0.00691)	(0.00801)	(0.0162)	(0.00681)	(0.00835)	(0.0162)	(0.00714)	(0.00823)	(0.0158)
Post 1999	-0.00415	-0.0407***	-0.0238*	0.00199	-0.0398***	0.000621	-0.00613	-0.000924	-0.0244*
	(0.00477)	(0.00675)	(0.0131)	(0.00568)	(0.00815)	(0.0150)	(0.00541)	(0.00752)	(0.0132)
Post 1999*	-0.0105***	0.0152***	-0.0130	-0.00856**	0.0212***	0.00936	-0.00196	-0.00600	-0.0223**
Woman	(0.00321)	(0.00583)	(0.0126)	(0.00373)	(0.00657)	(0.0138)	(0.00325)	(0.00511)	(0.0104)
age_23_45*	-0.00513	0.0161***	0.0261***	-0.0261***	0.0407***	0.0301***	0.0210***	-0.0246***	-0.00396
Post 1999	(0.00513)	(0.00517)	(0.00946)	(0.00618)	(0.00613)	(0.0107)	(0.00630)	(0.00525)	(0.00836)
age_23_45*	-0.00764	0.00528	0.0273	0.0121	-0.0431***	0.00659	-0.0197	0.0483***	0.0207
Post 1999*woman	(0.0137)	(0.0119)	(0.0239)	(0.0143)	(0.0131)	(0.0247)	(0.0150)	(0.0128)	(0.0241)
Trend	0.00878	0.00321	-0.0517	0.0110	0.00875	-0.0307	-0.00217	-0.00553	-0.0210
	(0.0110)	(0.0129)	(0.0365)	(0.0102)	(0.0132)	(0.0335)	(0.0107)	(0.0141)	(0.0328)
Trend square	-0.00102	-0.000731	0.00461	-0.00126	-0.000999	0.00296	0.000234	0.000268	0.00165
	(0.000971)	(0.00110)	(0.00296)	(0.000903)	(0.00114)	(0.00277)	(0.000951)	(0.00120)	(0.00268)
Trend*age_23_45*	0.000674	-0.00271	0.0138**	0.00783**	0.000436	-0.000913	-0.00716**	-0.00315	0.0147**
woman	(0.00329)	(0.00307)	(0.00600)	(0.00329)	(0.00324)	(0.00603)	(0.00350)	(0.00336)	(0.00629)
Trend squared*	0.000318	0.000259	-0.000894	-0.000464	0.000103	6.26e-05	0.000782*	0.000156	-0.000956
age_23_45*women	(0.000408)	(0.000335)	(0.000651)	(0.000418)	(0.000364)	(0.000672)	(0.000447)	(0.000377)	(0.000696
		,	•	,		,	·	,)
Observations	280,034	241,592	61,911	280,034	241,592	61,911	280,034	241,592	61,911

Note: Additional controls include age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, an immigration dummy, a dummy indicating whether the individual was working the previous year, provinces' unemployment rate, 17 region dummies, and these 17 dummies interacted by the time trend and its squared.

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 8.B Sensitivity Analysis. Differences in Differences in Differences Estimates
Employment Effects of the Family Friendly Law on Non-Eligible Childbearing-Aged Women,
By Education Level, LFS 1994-2003

VARIABLES	Employment			Permanent employment			Fixed-term employment		
	HS dropout	HS graduate	College	HS dropout	HS graduate	College	HS dropout	HS graduate	College
1. Raw	0.0666***	-0.0110	0.0314	0.0668***	-0.0502***	0.00674	-0.000152	0.0392***	0.0246*
	(0.0103)	(0.0113)	(0.0253)	(0.0100)	(0.0114)	(0.0255)	(0.00840)	(0.00716)	(0.0137)
2. Controls but no	0.0176**	0.00797	0.0433***	0.0263***	-0.0351***	0.00524	-0.00862	0.0431***	0.0381***
trend									
	(0.00694)	(0.00711)	(0.0151)	(0.00782)	(0.00800)	(0.0161)	(0.00805)	(0.00699)	(0.0136)
3. Plus linear trend	-0.000358	0.0101	0.0139	0.00349	-0.0409***	0.0103	-0.00385	0.0510***	0.00356
	(0.00961)	(0.00965)	(0.0199)	(0.0101)	(0.0105)	(0.0205)	(0.0104)	(0.00989)	(0.0192)
4. Plus trend	-0.000511	0.0102	0.0136	0.00129	-0.0411***	0.00962	-0.00180	0.0513***	0.00397
regional									
Interactions	(0.00961)	(0.00965)	(0.0199)	(0.0101)	(0.0105)	(0.0204)	(0.0104)	(0.00989)	(0.0192)
5. Controls +	-0.00737	0.00497	0.0276	0.0161	-0.0428***	0.00711	-0.0235	0.0478***	0.0205
squared trend									
	(0.0137)	(0.0119)	(0.0239)	(0.0144)	(0.0131)	(0.0248)	(0.0150)	(0.0128)	(0.0241)
6. Plus trend	-0.00764	0.00528	0.0273	0.0121	-0.0431***	0.00659	-0.0197	0.0483***	0.0207
regional									
Interactions	(0.0137)	(0.0119)	(0.0239)	(0.0143)	(0.0131)	(0.0247)	(0.0150)	(0.0128)	(0.0241)
Observations	280,034	241,592	61,911	280,034	241,592	61,911	280,034	241,592	61,911

Note: Except for row 1, controls include age and age square, cohabitation and marital status, a dummy indicating whether the individual is the household head, a variable indicating the number of children in the household, an immigration dummy, a dummy indicating whether the individual was working the previous year, provinces' unemployment rate, and 17 region dummies. In addition, in rows 4 and 6, these 17 dummies are interacted by the time trend (row 4) and the trend and its squared (row 6).

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 8.C Placebo Test. Differences in Differences in Differences
Employment Effects of the Family Friendly Law on Non-Eligible Childbearing-Aged Women,
By Education Level, LFS 1994-1999

VARIABLES		Employi	nent	Permanent employment			Fixed-Term employment		
	HS dropout	HS graduate	College	HS dropout	HS graduate	College	HS dropout	HS graduate	College
woman	-0.0348***	-0.0889***	-0.0427***	-0.0258***	-0.110***	-0.0756***	-0.00893***	0.0213***	0.0329***
	(0.00306)	(0.00649)	(0.0125)	(0.00318)	(0.00711)	(0.0140)	(0.00297)	(0.00549)	(0.00956)
age_23_45	0.0155***	-0.0473***	-0.0695***	-0.0147***	-0.0773***	-0.0785***	0.0302***	0.0300***	0.00903
	(0.00492)	(0.00655)	(0.0120)	(0.00527)	(0.00753)	(0.0131)	(0.00531)	(0.00597)	(0.00973)
age_23_45*	-0.0667***	0.0114	-0.0369	0.0184*	0.0680***	0.0599**	-0.0852***	-0.0566***	-0.0968***
Woman	(0.0100)	(0.0129)	(0.0252)	(0.00961)	(0.0132)	(0.0254)	(0.0101)	(0.0129)	(0.0240)
Post 1997	0.00556	-0.00761	-0.00602	0.00230	-0.00125	-0.0218	0.00326	-0.00635	0.0158
	(0.00421)	(0.00764)	(0.0135)	(0.00455)	(0.00867)	(0.0145)	(0.00417)	(0.00722)	(0.0111)
Post 1997*	-0.0105***	-0.0133*	0.00254	0.00201	-0.000267	0.00243	-0.0125***	-0.0131**	0.000103
Woman	(0.00339)	(0.00758)	(0.0158)	(0.00368)	(0.00842)	(0.0171)	(0.00317)	(0.00609)	(0.0122)
age_23_45*	0.0148***	0.0141**	0.0355***	-0.00807	0.0110	0.0269**	0.0229***	0.00305	0.00866
Post 1997	(0.00559)	(0.00682)	(0.0118)	(0.00602)	(0.00779)	(0.0129)	(0.00611)	(0.00622)	(0.00908)
age_23_45*	0.00116	-0.00663	-0.0437*	0.0137	-0.00964	-0.0117	-0.0125	0.00301	-0.0320
Post 1997*woman	(0.0105)	(0.0122)	(0.0255)	(0.0103)	(0.0129)	(0.0256)	(0.0109)	(0.0118)	(0.0238)
Trend	-0.0361	-0.0133	0.0152	0.0195	0.000850	0.0298	-0.0556**	-0.0142	-0.0147
	(0.0244)	(0.0307)	(0.0983)	(0.0218)	(0.0307)	(0.0869)	(0.0221)	(0.0333)	(0.0767)
Trend square	0.00591*	0.00182	-0.00485	-0.00252	-0.000119	-0.00463	0.00843***	0.00194	-0.000227
	(0.00339)	(0.00431)	(0.0131)	(0.00301)	(0.00419)	(0.0113)	(0.00311)	(0.00456)	(0.0104)
Trend*age_23_45*	0.00662	-0.000593	0.0264*	0.00270	0.0135*	-0.0179	0.00392	-0.0141*	0.0443***
woman	(0.00619)	(0.00722)	(0.0143)	(0.00586)	(0.00725)	(0.0138)	(0.00625)	(0.00756)	(0.0145)
Trend squared*	-0.000846	0.000479	-0.00160	-2.04e-05	-0.00154*	0.00257	-0.000825	0.00202**	-0.00417**
age_23_45*women	(0.000842)	(0.000900)	(0.00181)	(0.000799)	(0.000916)	(0.00174)	(0.000850)	(0.000954)	(0.00186)
Observations	204205	152543	37388	204205	152543	37388	204205	152543	37388

Note: Same controls as in Table 8.A.