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

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Abstract

We exploit a 1999 Spanish law that granted all workers with children under 7 years the right to work PT with the objective to facilitate the conciliation of family life and work. 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 differences-in-difference-in-differences (DDD) methodology, we find evidence that the law increased PT work among eligible mothers with a permanent contract by 39%, but had no effect on eligible fathers or mothers with a temporary contract. This effect is driven by less-educated women. Using a DDDD methodology, we then analyze the effects of the law among non-eligible childbearing-aged women. The analysis is done by education level, as both the labor markets and the effects of the policy differ across skill types. We find that this policy led to the unintended effect of decreasing by 17% the likelihood of being employed with a permanent contract among high-school childbearing aged women (relative to childbearing-aged men and older women), while increasing their relative likelihood of having a fixed-term contract job by 30%. These findings suggest that, after the law, employers preferred hiring childbearing-aged men and older women under permanent contracts (offering fixed-term contracts to non-eligible childbearing-aged women).

Key words: Temporary Employment, Flexible Work Arrangement Laws, European Unemployment.

JEL classification: J13, J16, J21, J22, J31, J62, C23 J23, J32, J38, J63, J65. CHECK

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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 have adopted policies encouraging family-friendly work environments. According to Budd and Mumford, 2006, "*the European Union continues to press member states to introduce legislation and foster policies that aim at reconciling work and family life, and employee advocacy groups lobby for similar legislation at the state and federal level in the United States. All these efforts are intended to promote gender equality in the workplace, and greater quality care for children and dependents (Caracciolo, 2001).*" In addition, it is generally assumed that individual employees also gain from the availability of these policies (Department of Trade and Industry, 2001a). However, such gains rest on the extent to which employees use these policies, as not all workers have equal access to such programs (Deitch & Huffman, 2001); not all employees are equally aware of benefit availability (see Baird and Reynolds, 2004; and Budd and Brey, 2003); and 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).

At the same time, deepening segmentation of the labor markets in many Continental European countries (such as, France, Germany, Portugal, Italy, and Spain)—with 'insiders' (those with permanent contracts), on the one side, enjoying high level of employment protection, decent jobs and generous benefits, and 'outsiders' (those with fixed-term contracts), on the other, having poor labor market perspectives

and low remuneration—, may lead to serious unintended effects of family-friendly policies, especially amongst those in the secondary segment of such markets. The central point of this article is to investigate whether a family-friendly policy implemented in Spain in the late 1990s was effective among the eligible population and to explore whether it led to unintended effects on the rest of the population.

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 modified the 1980 Worker's Act (*Estatuto del Trabajador)* by granting all wage and salary workers' the right to reduce working hours—including to work part-time (PT) but also to resume their full-time job—if they had children under seven. The objective of this policy was to allow for 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-in-differences approach (DDD), 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 in the primary segment of the labor market. The analysis compares the PT employment rate of eligible mothers and fathers (the two treated groups) before and after the law. As comparison groups, we use mothers with children between 7 and 12 years and fathers with children between 7 and 16 years. 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, leading to the DDD estimator, which compares changes in the behavior of the treatment group with changes for the control group correcting for their different underlying trend.

Overall, we find evidence that the law was successful in that it increased the rate of PT work among eligible mothers working with a permanent contract—that is, those with children under seven—by 39%. 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, suggesting that these women are in jobs in which the impact of work effort is important, leading to a small reduction in hours worked in the presence of small children (even after the family-friendly law was enacted). In addition, we find that the impact on less-educated women worked through different channels. For those with a high-school degree, the law led to a substitution between working PT in the secondary segment of labor market and the primary one. In contrast, for those *without* a high-school degree, the law induced those with a permanent contract to reduce their work-week (however, in the absence of the law, these women would have retained their permanent contract with a full-time schedule). These findings reveal that the marginal utility of income and the marginal productivity of time and energy spent by mothers differ across skill levels, leading to different employment choices (before and after the law).

We then proceed to analyze whether the law had any unintended effect on employment outcomes of non-eligible childbearing-aged women using a differences-in-differences-in-differences-in-differences approach (DDDD). 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.[1] The analysis compares employment outcomes of non-eligible women between 23 and 45 years old (the treated group) before and after the law. As a comparison group, we use men in the same age range. In addition, older individuals are included to control for any possible labor force status changes across genders over time. Finally, 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, leading to the DDDD estimator.

Among non-eligible childbearing-aged women with a high-school degree, we find that the law significantly decreased by 17% 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 (excluding those with children under 7 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, 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

[1] This is in line with research on the differential effects of 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.

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 in such a bleak labor market is of highest policy relevance.

Our contribution to the literature is twofold. First, we find evidence of unintended labor market effects of a family-friendly law on non-eligible childbearing-aged women. Second, we contribute to the literature that highlights the relevance of labor market institutions.

The paper is organized as follows. The next two sections describe the Spanish economic and institutional background, and the 39/1999 law. Section IV presents the data and the descriptive statistics. Section V analyzes the effects of the family-friendly policy on the employment outcomes of the eligible population. Section VI analyzes the effects of the family-friendly policy on the employment outcomes of non-eligible childbearing-aged women. Section VII concludes.

II. Economic and Institutional Background

A Traditional but Not a family-friendly Country

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 change in attitudes, reflected by females entrance into the labor force (female employment share has soared from 36% in 1990 to 63% in 2010), child care is still a woman's main responsibility in Spain. 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. According to Marí-Klose *et al.*, 2010, mothers in Spain spend on average 8.4 hours per day with their children, while fathers spend 5.7 hours. This asymmetry increases when the child is under three. And

persist, even when both parents work, as mothers spend about 2.3 hours more per work-week day than fathers taking care of their children (compared to a difference of 4.7 hours when only the father works).

At the same time, Spain is not a family-friendly country for working mothers. According to Sanchez-Mangas and Sanchez-Marcos (2008), the following five stylized facts illustrate the challenges that the Spanish society has in reconciling work and family. First, Spain has one of the lowest female employment rates in the OECD. For instance, in 2002, the Spanish female employment rate was 45%, far from the 66% of the US and the UK, 67% of Canada, and 73% of Sweden. Second, Spanish maternity leave is, on average, nine weeks shorter than in most of the European countries (OECD, 2001). Third, the use of formal child-care arrangements for three-year-old children is much less frequent in Spain than in the average European country. This is partly due to the fact that access to day-care for children under three is very scarce in Spain and, being predominantly private, it is also relatively expensive. Thus, it ought not to come as a surprise that babies and toddlers' enrollment rate is low in Spain compared to neighboring countries: as such, in 2001 the proportion of children under the age of three in preschool was only 9 percent in Spain, in sharp contrast with the European average of 25 percent (Gauthier, 2000; and Tietze and Cryer, 1999). Fourth, the 2004 Spanish Labor Population Survey indicates that 65% of women aged 45 and younger reported family responsibilities as their main reason for not participating in the labor market (Herrarte-Sánchez, Moral-Carcedo, and Sáez-Fernández, 2007). Last, but not least, at 1.25 in 2002, the Spanish fertility rate is one of the lowest fertility rate among the OECD countries—compared, for example, with 2 in the US or 1.6 in the UK—, which is also indicative of the difficulties of reconciling work and family in Spain. As a consequence, Spain not only has one of the lowest fertility rates worldwide, but it is one

of the countries in which women postpone having their first child to a relatively late age (see Figure 1). Previous research has found that one of the reasons to delay marriage and fertility in Spain is that female workers prefer to wait and have a protected job before engaging in motherhood (Ahn and Mira, 2001; Baizan, 2004; de la Rica and Iza, 2005; Gutierrez-Domenech, 2005; García Ferreira and Villanueva, 2007).

With a strongly segmented labor market

Spain is among the countries with a lower incidence of PT work combined with an extremely high incidence of fixed-term employment as shown in Table 1 (OECD, 2008). The two most common forms of flexible work arrangements (fixed-term contracts and PT (PT) work) have evolved quite differently in Spain over the last two decades. Both types of contracts were first regulated by law in 1984 with the objective of adding flexibility and promoting employment in a rigid labor market with stringent employment protection legislation and high levels of unemployment. While fixed-term employment soared, the growth in PT employment was modest, at most. As a result, since the early 1990s, fixed-term employment represents one third of the Spanish labor force (by far, the highest share among European countries), whereas the share of PT employment is below one tenth of the labor force (far from the EU average of 18%).

In Spain, women are over-represented in both types of work arrangements, PT and fixed-term. For example, 41% of contracts among women in Spain are fixed-term compared to 35% among men, and 23% of women work in PT jobs compared to 4% of men (LFS, 2005). While women's role in home production may imply that women have stronger preferences than men for PT jobs, this does not necessarily imply gender differences for fixed-term contracts (as a permanent contract is at least as desirable as a fixed-term one, given that it would commit the firm rather than the worker to costly procedures in case of separation).

Prior to 1984, most contracts in Spain were permanent contracts. With such contracts, the costs of dismissing a worker were high (up to 45 days of wages per year worked if the worker appealed to Court and the dismissal was declared "unfair", with a limit of 24 months' wages).[2] In 1984, in a context of high unemployment and given that an across-the-board reduction of dismissal costs was politically unfeasible; the use of temporary contracts was liberalized. As such, fixed-term contracts for regular activities entailed much lower severance payments than permanent contracts (initially of 12 days per year worker, zero if the firm waited until expiration), and their termination could not be appealed to labor courts (in contrast with their permanent counterpart). However, temporary contracts could only be used up to a maximum of three consecutive years.

After the 1984 regulation change, fixed-term employment soared and, since the early 1990s, they have represented one third of the Spanish labor force. The surge of fixed-term contracts led to a dual labor market with workers with fixed-term contracts holding unstable, low protected and poorly paid jobs, while workers with permanent contracts enjoyed protection and presumably also higher wages. According to Bover and Gómez, 2004, between 1985 and 1994, over 95% of all new hires were employed through temporary contracts and the conversion rate from temporary to permanent contracts was only around 10%. In 1997, 5 of the 17 Spanish regions introduced regional subsidies to promote the conversion of fixed-term contracts into permanent ones (summarized in Barceló and Villanueva, 2010). Progressively, between 1997 and 2004, all regions but Catalunya and Navarra, implemented for at least one year such type of subsidy. The subsidy amount varied with the region of residence, the year in which the contract started, and the age and gender of the worker—often being larger if

[2] Izquierdo and Lacuesta, 2006, and Galdón-Sánchez and Güell, 2003, estimate that between 72% and 75% of cases that arrived to court were declared "unfair" by Spanish judges.

the worker with a fixed-term contract was a worker younger than 30 years or older than 45 years. Overall, the amount granted ranged between €1,200 and €14,000 euros. According to García-Pérez and Rebollo-Sanz, 2009, the subsidy amount represented about 20% of the average worker's yearly labor costs. In our preferred specification, we shall control for any effects of such regional subsidies on the employment outcomes to prevent them from biasing our coefficients of interest.

III. 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.[3] 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

[3] The maximum age of the child was extended from six to eight in 2007.

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 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 described in Section II, we suspect that mainly mothers of small children would access the policy of requesting reduced work week to care for their young child. In contrast, based on anecdotal evidence, we do not expect fathers of young children to access the policy. 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).

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 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 *non*-eligible childbearing-aged women (as the policy did not protect them from a layoff) relative to childbearing-aged men (as eligible fathers did not access the new policy rights) or to older women (as there was no danger of them getting pregnant and potentially becoming eligible). 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.

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.

IV. Data

We use data from the second quarter of the 1994 through 2003 Spanish Labor Force Survey (LFS)—we exclude the year of implementation (the year 2000) to guarantee a clear cut before and after the law.[4] 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). Following Fernández-Kranz and Rodríguez-Planas, 2010, 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 women younger than 23 years old is that we want to eliminate PT work by students. Finally, to avoid capturing the effects of the law on those who cared about grandparents, we exclude individuals cohabitating with a grandparent. These 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 any unintended effect on non-eligible population.

Regional Subsidies and Preschool Enrollment Rates

As discussed earlier, in our preferred specification we control for regional subsidies to promote permanent employment. Our concern is that these subsidies may be affecting our treatment and control members differentially. Following Garcia-Pérez and Rebollo,

[4] 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.

2008, and Fernández-Kranz and Rodríguez-Planas (forthcoming), we compute a variable using information on the subsidies an individual may have been eligible for at any point time. We used the year, the age of the worker and the region of residence to assign to each worker at each point in time the monetary magnitude of the subsidy (in constant 2006 euros using regional deflators of household gross disposable income).

In addition, because there was some variation over that period in terms of preschool enrolment among children under 4 years (especially among children 3 years old), we add controls for enrolment rates at the region level for three age groups: children less than two, children 2 years old, and children 3 years old. These data come from the Ministerio de Educación y Ciencia.

V. 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. 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.

We compare PT rates 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; for fathers, the comparison group is fathers whose youngest child is between 7 and 16 years. 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. 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 aged less than 45 years old, which covers most childbearing years.[5] Sensitivity analysis with alternative children or parents' age groups provides similar results as those shown below. In addition, we allowed 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, leading to the DDD 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.

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: [6]

$$PART-TIME_{it} = \alpha_0 + \alpha_1 CHILD_{0-6i} + \alpha_2 AFTER_t + \alpha_3 (CHILD_{0-6i} * AFTER_t) + \alpha_4 t + \alpha_5 t * CHILD_{0-6it} + X_{it}^{'}\beta \quad (1)$$

where *t* indexes the year, and *i* indexes the individual. The variables $CHILD_{0\text{-}6i}$ 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

[5] 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.

[6] 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.

introduction of the policy (0 otherwise); and the variable ($CHILD_{0\text{-}6i}$*$AFTER_t$) 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 ($CHILD_{0\text{-}6i}$*$AFTER_t$), 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 observe among parents of 7 to 12 (7 to 16) years after the policy. As noted earlier, we include a time trend common to all groups and a specific trend for the treatment group.

The vector X_{ti} contains explanatory variables related to socioeconomic and family characteristics (such as, age and age square, cohabitation and marital status, 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, and region dummies).

Potential Policy Interactions

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). Around the same time that this policy was adopted, the Spanish government introduced the 1999 tax reform with the objective to encourage both fertility and female labor-force participation. The 1999 tax reform increased the subsidies associated with the birth of a new child by amounts varying between 60 and 700 euros a year, depending on the number of children and the tax bracket—and lasting until the children turned 18 years.[7,8] In relative terms, the magnitude of the increase in disposable income from the 1999 and 2003 tax reforms were relatively small as they ranged between 1.3 and 2.9% for low-bracket households (depending on the number of children), between 1.1 and 3.7% for middle-bracket ones, and between 0.8 and 3.7% for high-bracket households for all mothers with children under 16 years (see Azmat and González, 2010). Most importantly, they affected all families with children under 18, implying that any potential effects of the law are "washed out" by our DDD methodology. Nonetheless, in case there are differences in the family composition of the treatment and control groups that may be biasing our results, we control for the level of subsidies that each women receives given their family structure.[9, 10]

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[7] In 2003, a new tax reform was introduced with similar objectives but higher supplements and a additional amount for children under the age of three. See Sánchez and Sánchez, 2008, and Azmat and González, 2010, for a thorough analysis on how these tax reforms affected fertility, labor force participation, and employment of married women.

[8] It is unclear how these tax reforms affected the choice between working PT, FT, and non-employment. The 1999 and 2003 increase in after-tax income for household with children may have led to a reduction in hours worked (conditional on working) through an income effect (regardless of whether the increased deductions raised fertility or failed to do so) for *all* mothers of children under 16 years. The 2003 tax credit targeted to mothers with children under 3 could also affect hours conditional on employment for these mothers *only*, since in order to be eligible, a mother had to work hours equivalent to "half of full-time." It is, however, hard to sign this effect. Women already working FT could be induced to work fewer hours, while women working very few hours could increased them in order to become eligible. Finally, women induced to work by the reform could work "just enough" hours, reducing average hours of work.

[9] Following Whittington *et al.*, 1990, and Azmat and González, 2010, we use the tax deductions experienced by households in the intermediate bracket (28%).

[10] In addition, we have conducted a thorough analysis to identify any potential policy interactions using a two-stage methodology, in which the net effect of the tax reform on employment outcomes is estimated in

Descriptive Statistics

Table 2 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 2.

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. Similar results are found when the outcome of interest is 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. 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.

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the first stage using tax-reform eligible parents (as treatment group) and non-eligible individuals of similar age (as comparison group), and then used to construct an outcome variable for the second-stage *without* the effect coming from the child deductions. As expected, we found that the tax reform had a minor effect on the surge of PT employment among eligible women working in the primary labor market (results available from authors upon request).

As discussed in Section II, 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 socio-demographic differences across the different groups (also shown in Table 2) that one needs to control for. The multivariate analysis follows.

Results on Part-Time Employment

Tables 3.A. and 3.B. present the main coefficients of interest from estimating alternative specifications of equation (1) for women and men, respectively. Panels A and B show the estimated coefficients 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 Panel A of Table 3.A we find that, in the primary labor market, the rate of PT work among eligible mothers increased by a significant 6.88 percentage points after the reform relative to the observed changes in the comparison group- of other mothers (net of any underlying trends). 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 magnitude of the estimated effect is 40.87%, suggesting that the law was extremely effective in facilitating the

conciliation of family and work among women working in the primary labor market. Columns 2 and 3 of Panel A report alternative specifications. Column 2 controls for the subsidies to promote permanent contracts an individual may have been eligible for, and for regional preschool enrollment rates. Column 3 adds the level of tax subsidies that each woman receives given her family structure. The small differences between the coefficients in the first, second and third column suggest that, as expected, these alternative policies did not affect much our policy estimate, mainly because both women in the treatment and the comparison groups were targeted by the alternative policies. Nonetheless, after adding these additional controls, the coefficient of the interaction ($CHILD_{0\text{-}6i}$*$AFTER_t$), $\alpha_{3,}$, decreases about half of a percentage point, implying that the family-friendly law increased eligible mothers' PT employment rate by 6.35 percentage points (or 37.72%) in the primary segment of the labor market. The estimates of the family-friendly policy from Panel A of Table 3.A. are statistically significant at the 95% level, and robust to alternative specifications or comparison groups.[11]

While the positive coefficient of the variable Trend reflects that over time PT work increased its relevance among working mothers in the primary labor market; the negative coefficient of the variable Trend*$MOTHERS_{0\text{-}6i}$ reflects that this trend in PT work is flatter among mothers in the treatment group than those in the comparison group. Finally, the dummy variable $AFTER_t$ has a negative effect, reflecting the lower odds of working PT among *all* mothers in the years after the policy and net of the trend effects.

[11] Results shown in Tables 3.A and 3.B are robust to dropping data from the 2003 year, to modifying the age group of parents or children in the comparison, and to conditioning on having worked in the previous year. 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 is available when the child is 4 years old in Spain—and preschool enrollment rate beginning at 4 years is practically 100% in Spain.

As expected, and in contrast with the large effects of the law in the primary labor market, no statistically significant policy effects are found in the secondary labor market (shown in Panel B of Table 3.A). Moreover, the size of the coefficient of interest, α_3, drops considerably. 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 Table 3.B).

Results on Employment and Type of Contract

As explained in Section III, 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. At the same time, we do not anticipate any effect of the law on eligible fathers since they did not make use of the right to reduce work hours. Columns 1 and 2 of Table 4 present the effects of the family-friendly policy on employment and permanent employment estimating equation (1) with different LHS variables. In addition, Column 3 reports the effect of the law on the permanent contract rate. The main difference between columns 2 and 3 is that in column 3 we condition on currently working. Panel A shows the estimates for mothers and Panel B shows the estimates for fathers. As expected, the policy had no effect on the employment and type of contract of eligible fathers. However, it increased by 2.85 percentage points (or 17.72%), the likelihood of working under a permanent contract for eligible mothers (shown in Column 2 of Panel A). 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. Indeed, we find that the law increased by 7.82 percentage points (or 11.89%) the permanent contract rate among eligible mothers.

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 family-friendly law increased the odds of working under a permanent contract for eligible mothers. To further investigate this issue, in Table 5 we estimate a multinomial logit with 6 choices: out-of-the labor force, unemployment, PT fixed-term contract, full-time fixed-term contract, PT permanent contract and full-time permanent contract (PT fixed-term permanent contract being the baseline category). Relative risk ratios are presented. We observe that the family-friendly 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. [12]

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

[12] Results for men are not statistically significant and are available from the authors upon request.

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 6 and 7 explore if indeed this is the case.

Table 6 reports whether the law affected the PT rate among eligible mothers in either segment of the labor market. 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 workers working with a permanent contract. Indeed, there is no statistically significant effect of the policy for college educated women; moreover, the coefficient, α_3, is negative for this group. For high-school dropouts and graduates, we find that the policy led to an increase in PT work among eligible mothers of 13.6 and 5.92 percentage points, respectively. Given that the rate of PT work among these groups was 24.13% and 16.99%, this implies an increase of 56.35% for high-school dropouts and 34.84% for high-school graduates. 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, it 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 7 shows the effect of the policy on employment, permanent employment, and the rate of permanent employment by education level. In Columns 1 through 6, the only statistically significant effect of the law is on the odds of permanent employment. The law led to an increase in permanent employment of 3.17 percentage points (or 19.32%) for this group. When we estimated the effect of the law on the odds of fixed-term employment across skill groups (not shown but available from authors upon request), we found that the law decreased the odds of fixed-term contract employment for this group by 5.16 percentage points (or 63.66%), while leaving the rate for the other two groups unaffected.[13] Consistent with this, Column 8 shows that the law increased the rate of permanent employment for this group by 9.05 percentage points (or 13.90%), while leaving the rate for the other two groups unaffected.[14] 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. By promoting PT work and providing job protection for those mothers requesting the work-week reduction, the law induced them to stay employed with a permanent contract. The lack of policy effect on overall employment for this group (shown in Column 1 of Table 7) 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 substitute work in the

[13] 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.

[14] Permanent employment rate prior to the law for eligible mothers was 52.96% for high-school dropouts, 65.10% for those with a high-school degree, and 82.48% for college graduates.

secondary labor market (prior to the law) with PT work in the primary labor market (after the law).

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.

VI. 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 part-time 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 those non-eligible individuals, in particular, on childbearing-aged women without children under seven. The concern here is that employers may stop hiring non-eligible childbearing-aged women for jobs in the primary labor market because they may be concerned that as soon as the woman

gets a permanent contract, she decides to bear a child, subsequently she requests the reduced work schedule, and, thus, she ends up being protected from any possible layoff by the law 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 childbearing-aged women relative to childbearing-aged men (or older women).

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 non-eligible childbearing-aged women (including both childless women and those with children older than seven) relative to non-eligible childbearing-aged men (as eligible fathers did not access the new policy rights) or to older women (as there was no danger of them getting pregnant and potentially becoming eligible). Notice that, in this Section, we exclude from the analysis eligible mothers (that is, those with children under seven).

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-in-differences-in-differences approach (DDDD) similar to the one described earlier. The difference is that now our sample includes all individuals between 23 to 64 years old and pools both men and women. The reason being that we compare the outcomes of non-eligible childbearing-aged women—defined as women between 23 and 45 years old without children under

seven before and after the law, with those of similar men.[15] In addition, individuals between 46 and 64 years old are included to control for any possible labor force status changes over time. Finally, 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, leading to the DDDD estimator.

We focus on three outcomes of interest: employment, employment with a permanent contract, and PT employment in either segment of the labor market, and estimate the following equation:

$$Y_{it} = \alpha_0 + \alpha_1 WOMAN_i + \alpha_2 AGE_{23\_45i} + \alpha_3 \left(AGE_{23\_45i} * WOMAN_i \right) + \alpha_4 AFTER_t + \alpha_5 (WOMAN_i * AFTER_t) + \alpha_6 (AGE_{23\_45i} * AFTER_t) + \alpha_7 (AGE_{23\_45i} * WOMAN_i * AFTER_t) + \alpha_8 t + \alpha_9 t * CHILD_{0-6it} + X_{it}' \beta \quad (2)$$

where the variable $WOMAN_i$ is a dummy variable indicating whether the individual is a woman; the variable $AGE_{23\text{-}45i}$ is a dummy variable indicating whether the individual's age is within the childbearing age; the variable ($WOMAN_i$ * $AGE_{23\text{-}45i}$) 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 ($AGE_{23\text{-}45i}$*$AFTER_{it}$) 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 ($WOMAN_i$* $AGE_{23\text{-}45i}$ *$AFTER_{it}$) is a dummy equal 1 if the individual is a childbearing-aged women years after the introduction of the policy. Coefficient α_7 will now give us the estimated effect of the 1999 family-friendly policy on non-eligible childbearing-aged women.

[15] 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.

Descriptive Statistics

Table 8 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 8.

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 a larger increase 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 8 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 8), we proceed with the multivariate analysis.

Results

Table 9 reports the estimated coefficients from Eq. (2) for three separate sub-populations: high-school dropouts, high-school graduates and college graduates. The coefficient of interest is reported in the seventh row. It measures the effect of the policy on employment for childbearing-aged women relative to childbearing-aged men (relative to changes observed among older women and men and net of any differential trends between the treatment and the comparison group). The specification shown includes controls for individual socio-demographic characteristics, children tax subsidies according to the individual's family structure, subsidies to permanent employment according to the individual's region/age/gender, and regional preschool enrollment rates and unemployment rates.

Column 5 of Table 9 shows that the law had a statistically significant effect on permanent employment for high-school graduate childbearing-aged women. It decreased permanent employment by 4.16 percentage points among non-eligible childbearing-aged women relative to the observed changes in the comparison group (net of any underlying trends). Given that 24% of non-eligible childbearing-aged 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 17.26% for this group. Interestingly, the law led to sizeable and statistically significant increases in permanent employment for childbearing-aged men (a 3.81 percentage points increase) and for older women (a 2.37 percentage points increase), which implies increases of 8.44% and 15.02%, respectively.[16] Similar estimates with fixed-term contract

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

employment as a LHS variable (not shown but available from the authors upon request) show that the policy led to a relative increase in the odds of working with a fixed-term contract of 5.16 percentage points (or 29.66%) among childbearing-aged women—among childbearing-aged men, the law led to a relative decrease of 2.36 percentage points (or 8.87%). Consistent with this, Column 8 of Table 9 shows that the law decreased the rate of permanent employment for non-eligible childbearing-aged women with a high-school degree by 7.82 percentage points (or 13.53%). In addition, Column 7 of Table 9 shows that the law also decreased the rate of permanent employment for non-eligible childbearing-aged women without a high-school degree by 8.63 percentage points (or 14.71%).[17]

These results highlight that the family-friendly law led employers to drastically reduce their hiring of childbearing-aged 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 non-eligible childbearing aged women relative to the comparison group (shown in Column 2 of Table 9), 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 non-eligible childbearing-aged women with a high-school degree in Spain represent as much as 55% of all non-eligible childbearing-aged women and 54% of all women between 23 and 45 years old.[18]

Not surprisingly, we find no effect on non-eligible childbearing-aged women with a college degree. This is most likely due to the fact that eligible mothers with a

[17] Permanent employment rate prior to the law for non-eligible childbearing-aged women was 57.99% for those with a high-school degree, and 58.66% for those without a high-school degree. While this rates may seem surprisingly similar, they are conditional on women working. And many women without a high-school did not work prior to the law: only 25.29% of them worked compared to 41.52% of those with a high-school degree.

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

college did not access the family-friendly law, implying that in essence the family-friendly law was not binding for this group.

Table 10 reports the effect of the law on the rate of PT work for non-eligible childbearing-aged women by skill levels in either segment of the labor market. Column 1 shows that the law led to a relative decrease of the rate of PT work among non-eligible childbearing-aged women without a high-school degree by a significant 23.04 percentage points (or 35.80%), suggesting that after the law employers substitute non-eligible childbearing women with eligible childbearing women as their PT workers employees in the primary segment of the labor market.[19] Similar findings are observed among high-school graduates. The rate of PT work among non-eligible childbearing-aged women decreases 12.75 percentage points (or 21.49%). Again, no effects are found among college educated women or women in the secondary segment of the labor market. These results are very consistent with the earlier findings showing that the new policy rights were used mainly by eligible women with less than a college degree in the primary labor market.

VII. 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 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

[19] It is important to notice that eligible mothers are excluded from the sample when estimating equation (2).

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 or older women (passed their childbearing age) under permanent contract, and mainly offer childbearing-aged women fixed-term contracts.[20] 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-in-differences approach (DDD), we find that the law was only effective among eligible mothers—that is, those with children under seven—, working in the primary labor market. Overall, we find evidence that the law was successful in that it increased the rate of PT work among eligible mothers working with a permanent contract by 39%. 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. The findings by education level reveal that the marginal utility of income and the marginal productivity of time and energy spent by mothers differ across skill levels, leading to different employment choices (before and after the law).

[20] 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 DDDD 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 decreased by 17% the likelihood of being employed with a permanent contract, while increasing their likelihood of having a fixed-term contract job by 30%. Similarly, for childbearing-aged women without a high-school degree, we find that the law decreased their rate of permanent employment by 15%. Our findings suggest 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.

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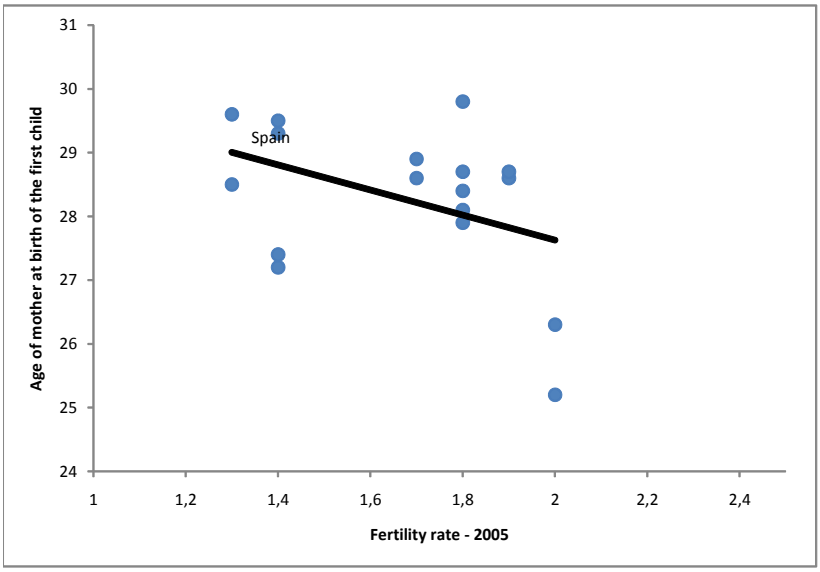
Figure 1
Age of Mother at the Birth of the First Child and Fertility Rate



Source: UNECE Statistical Division Database, compiled from national and international (EUROSTAT, UN Statistics Division Demographic Yearbook, WHO European health for all database and UNICEF TransMONEE). The total fertility rate is the average number of children that would be born alive per woman if all women lived to the end of their childbearing years and bore children according to the age-specific fertility rates of a given year. Countries are: Austria, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States.

Table 1
Incidence of Female Fixed-Term and PT Employment, OECD 2008

	Incidence of female temporary employment	Incidence of female PT employment
Australia	5.9%	37.7%
Belgium	9.7%	33.8%
Germany	14.9%	38.6%
The Netherlands	20%	59.9%
Norway	11.1%	30.8%
Spain	**31.2%**	**21.1%**
The United Kingdom	6%	37.7%
The United States	4.2%	17.8%

Table 2
Descriptive Statistics of Mothers Prior to the Law, 1994-1999 LFS

	TREATMENT		*CONTROL*	
	With children less than 7 years old		*With children 7 to 12 years 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-Law	16.08	54.72	17.50	51.69
	(36.73)	(49.78)	(38.00)	(49.97)
Permanent contract post-Law	25.68	64.84	24.63	57.43
	(43.69)	(47.74)	(43.09)	(49.45)
Difference	***9.60****†††	***10.12****†††	***7.13****	***5.74****
	(0.49)	***(0.62)***	***(0.72)***	***(0.74)***
PT rate in primary labor market pre-Law	16.84	0.74	17.73	0.68
	(37.42)	(8.59)	(38.19)	(8.20)
PT rate in primary labor market post-Law	19.35	0.44	18.59	0.75
	(39.51)	(6.61)	(38.91)	(8.64)
Difference	***2.52****	***-0.30****†	***0.86***	***0.08***
	(0.91)	***(0.12)***	***(1.30)***	***(0.19)***
PT rate in secondary labor market pre-Law	33.01	2.93	35.02	4.03
	(47.03)	(16.85)	(47.71)	(19.65)
PT rate in secondary labor market post-Law	39.55	2.84	39.16	3.73
	(48.91)	(16.63)	(48.84)	(18.96)
Difference	***6.53****	***-0.08***	***2.31****	***-0.29***
	(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 years	100	100	0	0
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
	(48.69)	(49.16)	(50.00)	(49.98)
College graduate or above	8.73	8.53	6.25	8.23
	(28.23)	(27.94)	(24.22)	(27.48)
Immigrant	1.63	1.36	0.98	0.59
	(12.66)	(11.58)	(9.83)	(7.64)
Province unemployment rate	21.52	21.50	21.12	21.07
	(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. † mean significantly different from comparison's mean at the 90% confidence level. [¥]Or with children 7 to 16 years old for men.

Table 3.A. Part-Time Employment Effect of the Family Friendly Law on Eligible Women, LFS 1994-2003

VARIABLES	**Working with a Permanent contract**			**Working with a fixed-term contract**		
Child <7	0.0283	0.0268	0.0203	-0.0132	-0.0132	-0.0106
	(0.0184)	(0.0185)	(0.0186)	(0.0319)	(0.0318)	(0.0319)
Post 1999	-0.0666***	-0.0657***	-0.0742***	0.0378	0.0291	0.0432
	(0.0228)	(0.0237)	(0.0241)	(0.0385)	(0.0418)	(0.0424)
Post 1999	**0.0688****	**0.0672****	**0.0635****	**0.00325**	**0.00353**	**0.00603**
*** child< 7**	**(0.0287)**	**(0.0287)**	**(0.0287)**	**(0.0511)**	**(0.0510)**	**(0.0511)**
Trend	0.0230***	0.0244***	0.0262***	0.0134**	0.00653	0.00282
	(0.00404)	(0.00440)	(0.00454)	(0.00643)	(0.00764)	(0.00795)
Trend* child<7	-0.0108**	-0.0104**	-0.00866*	0.00183	0.00154	0.000847
	(0.00458)	(0.00458)	(0.00461)	(0.00795)	(0.00792)	(0.00794)
One child			-0.312			-0.366
			(0.215)			(0.327)
Two children			-0.232			-0.271
			(0.154)			(0.235)
Three children			-0.0898			-0.134
			(0.101)			(0.152)
Post 2002			-0.0272*			0.0346
			(0.0161)			(0.0299)
Deduction 1 child			-2.83e-05*			-8.53e-06
			(1.51e-05)			(3.44e-05)
Deduction 2			9.21e-06			6.17e-05*
Children			(1.64e-05)			(3.16e-05)
Deduction 3			-6.15e-05**			-2.60e-05
Children			(2.43e-05)			(3.73e-05)
Deduction 4			-3.15e-05			1.59e-05
children or more			(4.43e-05)			(6.49e-05)
Permanent		1.96e-07	1.04e-06		-8.38e-07	-1.81e-06
Subsidy		(6.99e-07)	(7.53e-07)		(1.32e-06)	(1.38e-06)
Enrollment		-0.0175**	-0.00827		0.0292*	0.0216
children <2		(0.00756)	(0.00788)		(0.0164)	(0.0163)
Enrollment		0.00955***	0.00540		-0.0106	-0.00729
children = 2		(0.00368)	(0.00382)		(0.00789)	(0.00786)
Enrollment		-0.000434	-0.000593		0.000685	0.000945
children = 3		(0.000444)	(0.000452)		(0.000812)	(0.000831)
Observations	16077	16077	16077	8698	8698	8698

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

Table 3.B. Part-Time Employment Effect of the Family Friendly Law on Eligible Men, LFS 1994-2003

VARIABLES	Working with a Permanent contract			Working with a fixed-term contract		
Child <7	0.000975	0.00101	0.000299	7.27e-06	-0.000168	0.00162
	(0.00247)	(0.00246)	(0.00251)	(0.00850)	(0.00854)	(0.00865)
Post 1999	-0.00482	-0.00460	-0.00562	-0.0117	-0.0108	-0.0100
	(0.00381)	(0.00401)	(0.00401)	(0.0107)	(0.0115)	(0.0116)
Post 1999	**-0.000511**	**-0.000523**	**-0.000658**	**0.00861**	**0.00900**	**0.00942**
*** child< 7**	**(0.00464)**	**(0.00465)**	**(0.00464)**	**(0.0134)**	**(0.0134)**	**(0.0134)**
Trend	0.00107*	0.00102*	0.00131**	0.00243	0.000706	0.000910
	(0.000567)	(0.000617)	(0.000643)	(0.00168)	(0.00195)	(0.00199)
Trend* child<7	-0.000470	-0.000472	-0.000284	-0.00112	-0.00110	-0.00150
	(0.000693)	(0.000696)	(0.000706)	(0.00205)	(0.00206)	(0.00207)
One child			-0.00793			-0.0227
			(0.0215)			(0.0420)
Two children			-0.00811			0.00125
			(0.0173)			(0.0303)
Three children			-0.0109			0.0239
			(0.0136)			(0.0216)
Post 2002			-0.00242			-0.0102
			(0.00217)			(0.00718)
Deduction 1 child			-3.74e-06**			5.91e-06
			(1.82e-06)			(7.87e-06)
Deduction 2			-1.02e-06			6.53e-06
Children			(1.54e-06)			(7.64e-06)
Deduction 3			-3.38e-07			-4.93e-06
Children			(1.57e-06)			(6.59e-06)
Deduction 4			-5.49e-06			4.66e-05**
children or more			(4.59e-06)			(2.35e-05)
Permanent		8.65e-09	9.07e-08		-2.89e-07	-1.42e-07
Subsidy		(8.71e-08)	(9.53e-08)		(3.26e-07)	(3.32e-07)
Enrollment		-0.000295	0.000518		0.000325	0.00137
children <2		(0.000673)	(0.000791)		(0.00373)	(0.00390)
Enrollment		0.000139	-0.000229		0.000622	0.000136
children = 2		(0.000306)	(0.000364)		(0.00181)	(0.00188)
Enrollment		2.13e-05	-8.43e-06		0.000300	0.000218
children = 3		(5.96e-05)	(6.22e-05)		(0.000211)	(0.000204)
Observations	42963	42963	42963	19802	19802	19802

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

Table 4. Employment and Permanent Employment Effect of the Family-Friendly Law on Eligible Parents, LFS 1994-2003

VARIABLES	Women			Men		
	Employment	***Permanent Contract***		***Employment***	***Permanent Contract***	
		Unconditional on employment	***Conditional on employment***		***Unconditional on employment***	***Conditional on employment***
Child <7	-0.00197	0.0345***	0.0924***	0.0286***	-0.0126	-0.0170
	(0.00639)	(0.00591)	(0.0183)	(0.00771)	(0.00925)	(0.0106)
Post 1999	0.0449***	0.0127	-0.0419*	-0.00731	0.0109	0.0123
	(0.00926)	(0.00888)	(0.0218)	(0.00886)	(0.0112)	(0.0125)
Post 1999	**-0.00996**	**0.0285*** **	**0.0782*** **	**-0.00874**	**-0.0150**	**-0.00882**
*** child< 7**	**(0.0109)**	**(0.0103)**	**(0.0263)**	**(0.0109)**	**(0.0143)**	**(0.0157)**
Trend	-0.00680***	-0.000328	0.0121***	-0.00174	0.000217	-0.000727
	(0.00175)	(0.00166)	(0.00422)	(0.00168)	(0.00220)	(0.00247)
Trend* child<7	-0.00434***	-0.00568***	-0.00939**	-0.00355**	0.00380*	0.00470*
	(0.00161)	(0.00150)	(0.00431)	(0.00180)	(0.00225)	(0.00252)
One child	-0.0166	0.0433**	0.175	-0.0413	0.0135	0.0500
	(0.0203)	(0.0194)	(0.187)	(0.0586)	(0.0621)	(0.0846)
Two children	-0.0300*	0.00747	0.0994	-0.00531	0.0487	0.0813
	(0.0167)	(0.0158)	(0.133)	(0.0423)	(0.0462)	(0.0624)
Three children	-0.0216	-0.00252	0.00613	0.0141	0.0402	0.0651
	(0.0149)	(0.0139)	(0.0859)	(0.0287)	(0.0330)	(0.0438)
Post 2002	-0.0186***	-0.0200***	-0.0306**	-0.0277***	-0.0244***	-0.0106
	(0.00689)	(0.00624)	(0.0149)	(0.00639)	(0.00861)	(0.00932)
Deduction 1 child	0.000190***	0.000130***	4.84e-05***	7.56e-05***	5.30e-05***	1.82e-05
	(1.03e-05)	(1.19e-05)	(1.52e-05)	(5.70e-06)	(1.21e-05)	(1.23e-05)
Deduction 2	0.000125***	0.000110***	7.28e-05***	5.31e-05***	3.50e-05***	3.25e-06
Children	(8.44e-06)	(8.11e-06)	(1.27e-05)	(5.09e-06)	(8.71e-06)	(9.06e-06)
Deduction 3	7.21e-05***	5.48e-05***	5.86e-05***	4.20e-05***	3.97e-06	-1.73e-05
Children	(9.03e-06)	(8.58e-06)	(2.25e-05)	(7.84e-06)	(1.22e-05)	(1.34e-05)
Deduction 4	4.11e-05***	3.55e-05***	1.21e-05	5.11e-05***	4.03e-05**	3.28e-05*
children or more	(1.03e-05)	(9.81e-06)	(3.95e-05)	(1.30e-05)	(1.68e-05)	(1.95e-05)
Permanent	-1.23e-06***	-1.50e-06***	-1.32e-06*	-2.18e-08	-5.29e-07	-8.31e-08
Subsidy	(2.65e-07)	(2.42e-07)	(6.78e-07)	(2.82e-07)	(3.82e-07)	(4.27e-07)
Enrollment	-0.00764**	-0.00247	-0.00805	-0.000518	0.00984**	0.0123***
children <2	(0.00323)	(0.00304)	(0.00734)	(0.00320)	(0.00430)	(0.00450)
Enrollment	0.00361**	0.000743	0.00199	0.000316	-0.00460**	-0.00601***
children = 2	(0.00154)	(0.00144)	(0.00357)	(0.00154)	(0.00205)	(0.00215)
Enrollment	0.000206	-9.18e-05	3.22e-05	0.000454**	-0.000536**	-0.000547*
children = 3	(0.000175)	(0.000162)	(0.000427)	(0.000194)	(0.000256)	(0.000283)
Observations	91238	91238	24775	78551	78551	62765

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Comparison groups: parents with children 7 to 12 years old.

Table 5. Labor Force Status Effect of the Family-Friendly Law on Eligible Mothers, LFS 1994-2003
Multinomial Logit: Relative Risk Ratios. (Baseline outcome is Working PT with a Fixed-Term Contract)

VARIABLES	*Out of LF*	*Unemp.*	*FT fixed-term*	*PT permanent*	*FT permanent*
Child <7	0.433***	0.180	0.0705	0.660***	0.533***
	(0.118)	(0.123)	(0.141)	(0.174)	(0.136)
Post 1999	-0.600***	-0.782***	-0.196	-0.720***	-0.237
	(0.155)	(0.166)	(0.179)	(0.208)	(0.170)
Post 1999	**0.285**	**0.241**	**-0.0317**	**0.705*** **	**0.294**
*** child< 7**	**(0.185)**	**(0.196)**	**(0.216)**	**(0.249)**	**(0.205)**
Trend	0.0986***	0.108***	-0.00862	0.180***	0.00926
	(0.0301)	(0.0314)	(0.0353)	(0.0410)	(0.0325)
Trend* child<7	0.0114	0.0165	-0.00520	-0.0929**	-0.0388
	(0.0286)	(0.0300)	(0.0340)	(0.0409)	(0.0325)
One child	1.701*	1.861*	1.217	0.519	2.396**
	(0.975)	(0.993)	(1.106)	(1.264)	(1.222)
Two children	1.376*	1.422*	0.974	0.250	1.669*
	(0.712)	(0.726)	(0.811)	(0.933)	(0.890)
Three children	0.735	0.605	0.451	0.0966	0.610
	(0.485)	(0.498)	(0.563)	(0.656)	(0.606)
Post 2002	-0.0344	0.105	-0.125	-0.358**	-0.196
	(0.113)	(0.119)	(0.129)	(0.140)	(0.120)
Deduction 1 child	-0.00180***	-0.00185***	-3.77e-05	0.000113	0.000319**
	(0.000171)	(0.000179)	(0.000175)	(0.000174)	(0.000143)
Deduction 2	-0.00126***	-0.00123***	-0.000356**	0.000282*	0.000235*
Children	(0.000152)	(0.000155)	(0.000169)	(0.000161)	(0.000139)
Deduction 3	-0.000625***	-0.000497***	0.000130	-9.11e-07	0.000451**
Children	(0.000157)	(0.000163)	(0.000184)	(0.000198)	(0.000184)
Deduction 4	-0.000414*	-0.000346	6.62e-06	-9.50e-05	0.000213
children or more	(0.000219)	(0.000236)	(0.000258)	(0.000318)	(0.000280)
Permanent	1.33e-05**	1.28e-05**	8.16e-06	-1.20e-06	-4.01e-06
Subsidy	(5.29e-06)	(5.53e-06)	(6.26e-06)	(6.78e-06)	(5.68e-06)
Enrollment	0.0244	0.0147	-0.0860	-0.106	-0.0489
children <2	(0.0558)	(0.0584)	(0.0687)	(0.0743)	(0.0594)
Enrollment	-0.0235	-0.0156	0.0288	0.0422	0.00394
children = 2	(0.0269)	(0.0280)	(0.0333)	(0.0368)	(0.0288)
Enrollment					
Observations	91238	91238	91238	91238	91238

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

Table 6. Part-Time Employment Effect of the Family Friendly Law on Eligible Women, By Education Level, LFS 1994-2003

VARIABLES	Working with a Permanent contract			Working with a fixed-term contract		
	HS dropout	**HS graduate**	**College**	**HS dropout**	**HS graduate**	**College**
Child <7	-0.00512	0.0232	-0.0164	-0.00787	0.0125	-0.164
	(0.0416)	(0.0236)	(0.0405)	(0.0525)	(0.0427)	(0.140)
Post 1999	-0.103*	-0.0817***	0.0342	0.117	-0.0144	0.232
	(0.0566)	(0.0295)	(0.0500)	(0.0745)	(0.0549)	(0.169)
Post 1999	**0.136***	**0.0592***	**-0.0242**	**0.0153**	**0.0546**	**-0.264**
*** child< 7**	**(0.0816)**	**(0.0356)**	**(0.0574)**	**(0.0931)**	**(0.0647)**	**(0.198)**
Trend	0.0457***	0.0255***	-0.00691	0.00793	-0.000334	0.0155
	(0.0107)	(0.00579)	(0.00942)	(0.0140)	(0.0103)	(0.0307)
Trend* child<7	-0.00855	-0.0100*	0.00951	0.000211	-0.00553	0.0318
	(0.0113)	(0.00590)	(0.00918)	(0.0138)	(0.0104)	(0.0323)
One child	-0.849***	-0.116	0.713*	0.0484	-1.059**	0
	(0.253)	(0.396)	(0.380)	(0.386)	(0.475)	(0)
Two children	-0.632***	-0.115	0.505**	0.00639	-0.763**	-0.108
	(0.187)	(0.296)	(0.246)	(0.279)	(0.338)	(0.127)
Three children	-0.239*	-0.0473	0.252**	-0.00428	-0.392*	-0.250
	(0.140)	(0.205)	(0.123)	(0.185)	(0.225)	(0.264)
Post 2002	-0.0152	-0.0292	-0.0202	-0.0199	0.0805**	-0.0761
	(0.0515)	(0.0199)	(0.0301)	(0.0529)	(0.0372)	(0.0855)
Deduction 1 child	-8.67e-05	-2.98e-05	1.38e-06	-2.01e-05	-7.00e-06	-5.86e-06
	(6.10e-05)	(1.90e-05)	(2.62e-05)	(6.57e-05)	(4.35e-05)	(7.41e-05)
Deduction 2	1.06e-07	1.55e-05	-1.37e-05	0.000101*	4.93e-05	3.25e-05
Children	(5.03e-05)	(2.09e-05)	(3.13e-05)	(6.02e-05)	(3.96e-05)	(9.45e-05)
Deduction 3	-0.000169***	-5.91e-05*	1.08e-05	5.38e-05	-6.34e-05	-5.08e-05
Children	(6.04e-05)	(3.12e-05)	(4.34e-05)	(5.63e-05)	(5.59e-05)	(0.000106)
Deduction 4	1.01e-05	-0.000116*	-4.04e-05	-8.53e-07	-4.26e-05	6.10e-05
children or more	(0.000102)	(6.96e-05)	(5.25e-05)	(8.46e-05)	(0.000127)	(0.000198)
Permanent	-4.51e-07	1.69e-06*	6.13e-07	1.05e-06	-3.35e-06*	-7.70e-08
Subsidy	(2.31e-06)	(9.51e-07)	(1.39e-06)	(2.61e-06)	(1.72e-06)	(4.55e-06)
Enrollment	-0.0462**	-0.000801	0.00360	0.0237	0.0252	-0.0287
children <2	(0.0222)	(0.00977)	(0.0173)	(0.0340)	(0.0203)	(0.0459)
Enrollment	0.0246**	0.00249	-0.00213	-0.00696	-0.00845	0.0123
children = 2	(0.0106)	(0.00472)	(0.00857)	(0.0165)	(0.00979)	(0.0223)
Enrollment	-0.000764	-0.000730	-0.000507	-0.00190	0.00199*	-0.000245
children = 3	(0.00128)	(0.000579)	(0.000884)	(0.00154)	(0.00105)	(0.00279)
Observations	3151	10140	2786	2683	5293	722

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

Table 7. Employment Effects of the Family Friendly Law on Eligible Women,By Education Level, LFS 1994-2003

VARIABLES	Employment			Permanent contract					
				Unconditional employment			Conditional employment		
	HS dropout	**HS graduate**	**College**	**HS dropout**	**HS graduate**	**College**	**HS dropout**	**HS graduate**	**College**
Child <7	-0.00501	-0.00590	0.0351	0.0210***	0.0397***	0.0528*	0.0816**	0.101***	0.0942*
	(0.00892)	(0.00951)	(0.0273)	(0.00782)	(0.00874)	(0.0289)	(0.0343)	(0.0246)	(0.0493)
Post 1999	0.0270*	0.0559***	0.0223	-0.000632	0.0103	0.0216	-0.0593	-0.0504*	0.0152
	(0.0153)	(0.0128)	(0.0329)	(0.0147)	(0.0120)	(0.0356)	(0.0440)	(0.0276)	(0.0603)
Post 1999	**0.00482**	**-0.0243**	**0.0321**	**0.0186**	**0.0317****	**0.0275**	**0.0867**	**0.0905*****	**0.0259**
*** child< 7**	**(0.0185)**	**(0.0148)**	**(0.0391)**	**(0.0164)**	**(0.0137)**	**(0.0412)**	**(0.0583)**	**(0.0334)**	**(0.0680)**
Trend	-0.00602*	-0.00784***	-0.00314	0.000936	0.000464	-0.00596	0.0108	0.0157***	-0.00260
	(0.00310)	(0.00242)	(0.00670)	(0.00275)	(0.00230)	(0.00689)	(0.00874)	(0.00549)	(0.0115)
Trend*	-0.00470*	-0.00301	-0.0130**	-0.00525**	-0.00618***	-0.00813	-0.0130	-0.0101*	-0.00843
child<7	(0.00250)	(0.00229)	(0.00645)	(0.00216)	(0.00213)	(0.00672)	(0.00869)	(0.00569)	(0.0113)
One child	-0.0204	-0.0240	-0.0498	0.0338	0.0298	0.0784	0.292	-0.162	0.737**
	(0.0281)	(0.0337)	(0.0912)	(0.0243)	(0.0350)	(0.0760)	(0.249)	(0.382)	(0.306)
Two children	-0.0167	-0.0410	-0.0308	0.0127	-0.00115	0.0545	0.185	-0.135	0.484**
	(0.0224)	(0.0296)	(0.0750)	(0.0187)	(0.0303)	(0.0621)	(0.179)	(0.275)	(0.206)
Three	-0.0133	-0.0372	0.0172	0.00647	-0.0201	0.0400	0.120	-0.164	0.141
Children	(0.0183)	(0.0283)	(0.0687)	(0.0154)	(0.0280)	(0.0606)	(0.119)	(0.177)	(0.131)
Post 2002	-0.0215	-0.0139*	-0.0420	-0.0246**	-0.0134*	-0.0515**	-0.0627*	-0.0233	-0.0479
	(0.0131)	(0.00830)	(0.0276)	(0.0106)	(0.00765)	(0.0245)	(0.0355)	(0.0180)	(0.0355)
Deduction 1	0.000197***	0.000197***	0.000169***	0.000108***	0.000140***	0.000114***	8.28e-05*	6.13e-05***	3.28e-05
Child	(2.88e-05)	(1.33e-05)	(2.08e-05)	(3.84e-05)	(1.49e-05)	(2.55e-05)	(4.91e-05)	(1.84e-05)	(3.04e-05)
Deduction 2	9.90e-05***	0.000134***	0.000128***	6.79e-05***	0.000112***	0.000132***	7.50e-05*	7.40e-05***	5.72e-05**
Children	(2.23e-05)	(1.03e-05)	(2.18e-05)	(1.70e-05)	(1.04e-05)	(2.15e-05)	(3.96e-05)	(1.60e-05)	(2.61e-05)
Deduction 3	5.73e-05***	8.39e-05***	5.89e-05*	2.70e-05**	7.22e-05***	5.49e-05*	6.08e-06	9.68e-05***	6.48e-05
Children	(1.40e-05)	(1.34e-05)	(3.21e-05)	(1.28e-05)	(1.29e-05)	(3.12e-05)	(3.93e-05)	(3.22e-05)	(5.08e-05)
Deduction 4	2.44e-05*	4.40e-05**	9.90e-05**	1.45e-05	4.84e-05**	3.83e-05	1.92e-05	4.54e-05	-0.000105
children +	(1.37e-05)	(1.91e-05)	(4.16e-05)	(1.19e-05)	(1.95e-05)	(3.56e-05)	(6.48e-05)	(7.24e-05)	(6.60e-05)
Permanent	-1.25e-06***	-1.24e-06***	-2.69e-07	-1.23e-06***	-1.45e-06***	-1.11e-06	-2.07e-06	-1.36e-06	-4.42e-07
Subsidy	(4.63e-07)	(3.50e-07)	(9.23e-07)	(3.96e-07)	(3.16e-07)	(9.36e-07)	(1.69e-06)	(8.55e-07)	(1.50e-06)
Enrollment	0.00170	-0.00888**	-0.0230**	0.00826	-0.00597	-0.0110	0.0201	-0.0153*	-0.00142
children <2	(0.00631)	(0.00417)	(0.0103)	(0.00560)	(0.00385)	(0.0109)	(0.0185)	(0.00930)	(0.0162)
Enrollment	-0.00105	0.00390*	0.0128**	-0.00418	0.00179	0.00712	-0.0105	0.00465	0.00109
children = 2	(0.00289)	(0.00201)	(0.00502)	(0.00257)	(0.00183)	(0.00536)	(0.00889)	(0.00453)	(0.00795)
Enrollment	0.000264	0.000238	0.000424	0.000187	-0.000171	0.000245	0.000936	-0.000282	0.000248
children = 3	(0.000301)	(0.000231)	(0.000631)	(0.000270)	(0.000211)	(0.000651)	(0.000992)	(0.000556)	(0.000966)
Observations	29701	53545	7992	29701	53545	7992	5834	15433	3508

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

Table 8
Descriptive Statistics of Non-Eligible Childbearing Aged Women Prior to the Law, 1994-1999 LFS

	High-school dropouts		*High-school graduates*		*College graduates*	
	Women	***Men***	***Women***	***Men***	***Women***	***Men***
Employed pre-Law	25.29	64.17	41.52	71.75	43.27	61.05
	(43.47)	(47.95)	(49.76)	(45.02)	(49.55)	(48.77)
Employed post-Law	36.78	73.62	55.00	82.40	60.81	74.55
	(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*****
	(0.66)	***(0.55)***	***(0.44)***	***(0.30)***	***(0.77)***	***(0.71)***
Permanent contract pre-Law	14.84	35.89	24.08	45.14	23.63	43.99
	(35.55)	(47.97)	(42.76)	(49.76)	(42.45)	(49.64)
Permanent contract post-Law	21.07	39.07	34.39	56.09	38.41	55.82
	(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*****
	(0.58)	***(0.62)***	***(0.42)***	***(0.38)***	***(0.77)***	***(0.82)***
PT rate in primary labor market pre-Law	22.79	0.64	11.33	1.02	8.36	1.96
	(41.95)	(8.01)	(31.70)	(10.07)	(27.68)	(13.96)
PT rate in primary labor market post-Law	21.57	0.84	11.90	0.95	7.13	1.99
	(41.14)	(9.15)	(32.38)	(9.70)	(25.73)	(13.96)
Difference	***-1.22***	***0.20***	***0.57***	***-0.07***	***-1.23***	***0.03***
	(1.23)	***(0.18)***	***(0.51)***	***(0.10)***	***(0.82)***	***(0.30)***
PT rate in secondary labor market pre-Law	32.70	3.01	23.12	4.73	22.25	12.07
	(46.92)	(17.09)	(42.16)	(21.22)	(41.60)	(32.58)
PT rate in secondary labor market post-Law	33.53	2.22	25.16	4.66	23.72	11.40
	(47.23)	(14.74)	(43.39)	(21.08)	(42.54)	(31.79)
Difference	***0.83***†††***	***-0.79*****	***2.03***†††***	***-0.07***	***1.47***	***-0.67***
	(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
	(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
	(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
	(41.72)	(47.88)	(49.99)	(50.00)	(43.26	(48.43)
Number of children	1.08	1.08	0.60	0.72	0.29	0.58
	(1.01)	(1.12)	(0.85)	(0.90)	(0.64)	(0.89)
Children younger than 6 years	0	27.34	0	25.85	0	19.61
		(44.57)		(43.78)		(39.70)
Immigrant	1.11	1.73	1.07	0.97	1.79	237
	(10.50)	(13.05)	(10.27)	(9.78)	(13.27)	(15.22)
Province unemployment rate	22.02	22.52	20.31	20.42	19.86	19.93
	(7.16)	(7.42)	(6.64)	(6.75)	(6.22)	(6.22)
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 9. Employment Effects of the Family Friendly Law on Non-Eligible Childbearing-Aged Women, By Education Level, LFS 1994-2003

				Permanent contract					
VARIABLES	Employment			Unconditional on employment			Conditional on employment		
	HS dropout	**HS graduate**	**College**	**HS dropout**	**HS graduate**	**College**	**HS dropout**	**HS graduate**	**College**
woman	-0.0406***	-0.107***	-0.0661***	-0.0273***	-0.106***	-0.0804***	-0.000741	-0.0135	-0.0112
	(0.00237)	(0.00420)	(0.00918)	(0.00250)	(0.00467)	(0.00950)	(0.00711)	(0.00928)	(0.0149)
age_23_45	0.0176***	-0.0494***	-0.0779***	-0.0237***	-0.0823***	-0.0763***	-0.00538	-0.0385***	0.0210**
	(0.00383)	(0.00439)	(0.00840)	(0.00424)	(0.00520)	(0.00936)	(0.00694)	(0.00655)	(0.0104)
age_23_45*	-0.0629***	0.0196***	0.00350	0.0187***	0.0791***	0.0340**	-0.00190	-0.00942	-0.0341
Woman	(0.00536)	(0.00638)	(0.0133)	(0.00538)	(0.00675)	(0.0133)	(0.0158)	(0.0133)	(0.0225)
Post 1999	-0.00456	-0.0425***	-0.0346***	0.00653	-0.0397***	-0.0202	-0.00276	-0.0445***	-0.0345**
	(0.00389)	(0.00597)	(0.0111)	(0.00457)	(0.00694)	(0.0124)	(0.00913)	(0.00840)	(0.0142)
Post 1999*	-0.00903***	0.0165***	-0.0122	-0.00696*	0.0237***	0.0100	0.0229**	0.0137	0.0218
Woman	(0.00321)	(0.00584)	(0.0127)	(0.00373)	(0.00658)	(0.0138)	(0.0107)	(0.0130)	(0.0204)
age_23_45*	-0.0101*	0.0145***	0.0287***	-0.0277***	0.0381***	0.0311***	0.00373	0.0561***	0.0528***
Post 1999	(0.00524)	(0.00520)	(0.00947)	(0.00625)	(0.00615)	(0.0107)	(0.00873)	(0.00681)	(0.0108)
age_23_45*	**0.00479**	**0.00996**	**0.0127**	**0.00162**	**-0.0416*** **	**0.0103**	**-0.0863*** **	**-0.0782*** **	**0.00901**
Post 1999*woman	**(0.00975)**	**(0.00966)**	**(0.0199)**	**(0.0102)**	**(0.0105)**	**(0.0204)**	**(0.0249)**	**(0.0184)**	**(0.0309)**
Trend	-5.69e-05	0.00412***	0.00184	0.00414***	0.00962***	0.00724***	-0.000741	-0.0135	-0.0112
	(0.000670)	(0.000950)	(0.00198)	(0.000742)	(0.00109)	(0.00211)	(0.00711)	(0.00928)	(0.0149)
Trend*	0.00251**	-0.000126	0.00547**	0.00436***	0.00160	-0.000941	-0.00538	-0.0385***	0.0210**
age_23_45*women	(0.00122)	(0.00124)	(0.00246)	(0.00120)	(0.00128)	(0.00241)	(0.00694)	(0.00655)	(0.0104)
Observations	280034	241592	61911	280034	241592	61911	89891	138877	33136

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

Table 10. Part-Time Employment Effect of the Family Friendly Law on Non-Eligible Childbearing-Aged Women, By Education Level, LFS 1994-2003

VARIABLES	Working with a Permanent contract			Working with a fixed-term contract		
	HS dropout	**HS graduate**	**College**	**HS dropout**	**HS graduate**	**College**
woman	0.245***	0.110***	0.0946***	0.368***	0.357***	0.256***
	(0.00697)	(0.00851)	(0.0145)	(0.0130)	(0.0296)	(0.0861)
age_23_45	0.0100***	0.00411	0.0143**	0.0518***	0.0864***	-0.00217
	(0.00346)	(0.00329)	(0.00636)	(0.00723)	(0.0154)	(0.0654)
age_23_45*	-0.0914***	-0.0298***	-0.0462**	-0.0727***	-0.231***	-0.164*
Woman	(0.0164)	(0.0111)	(0.0197)	(0.0242)	(0.0320)	(0.0907)
Post 1999	-0.00846*	-0.0138***	-0.000706	-0.00918	-0.00451	-0.0535
	(0.00468)	(0.00308)	(0.00688)	(0.00902)	(0.0127)	(0.0654)
Post 1999*	-0.00413	0.0129	-0.0421**	0.0650***	0.0219	-0.148
Woman	(0.0113)	(0.0119)	(0.0186)	(0.0220)	(0.0415)	(0.125)
age_23_45*	0.00655***	0.00134	-0.00133	0.00191	0.00115	0.0279
Post 1999	(0.00253)	(0.00231)	(0.00504)	(0.00564)	(0.0111)	(0.0606)
age_23_45*	**-0.0825*** **	**-0.0274***	**0.0256**	**-0.0143**	**-0.0696**	**0.160**
Post 1999*woman	**(0.0277)**	**(0.0161)**	**(0.0264)**	**(0.0411)**	**(0.0452)**	**(0.130)**
Trend	0.00366***	0.00318***	0.000173	0.00304	0.00339**	0.00865*
	(0.00105)	(0.000671)	(0.00158)	(0.00211)	(0.00171)	(0.00525)
Trend*	0.0146***	0.00383**	0.00107	-0.00602	0.0127***	0.00146
age_23_45*women	(0.00393)	(0.00177)	(0.00315)	(0.00535)	(0.00295)	(0.00629)
Observations	59385	92083	23246	30506	46794	9890

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