Family Policy and Maternal Employment in the Czech Transition: A Natural Experiment

Alzbeta Mullerova[a]

University of Paris Ouest Nanterre La Défense,

92001 Nanterre, France

Abstract

Czech work-family reconciliation policies have gone through dramatic changes since the 1989 transition to a market economy. We focus on the 1995 Czech parental benefit reform which extended the payment of universal parental benefit from 3 to 4 years without an equivalent extension of the job-protected parental leave, leaving mothers to choose between either a guaranteed return to employment or an additional twelve months of benefits. We use a difference-in-differences strategy to assess the net effect of this reform on mothers' labour market participation. We find a strong negative impact on mothers' probability of returning to work at the end of parental leave, with heterogeneous size with respect to educational attainment. We also find evidence of the persistence of the detrimental effect on mothers' employment beyond the short-term horizon targeted by the legislator.

JEL Code: J16, J18, P30

Key words: Parental Leave, Policy Evaluation, Female Labour Force Participation

[a] Tel.: +33140977793. E-mail address : alzbeta.mullerova@u-paris10.fr

I am very grateful to Dominique Meurs, Florent Fremigacci and Uta Schönberg for their valuable help and comments. I also thank Christian Dustmann and Claudio Lucifora for their support, and Erich Battistin, Petra Todd, Claudia Senik and all the participants of the 18th IZA European Summer School and Defap/Laser Summerschool in Applied Microeconometrics for helpful suggestions.

1 Introduction

In 1989, the centrally-planned Czech economy collapsed and the transition to a market economy led to major welfare state and labour market changes. In particular, the participation rate of mothers with young children declined steeply. In this paper, we examine the effect of a specific reform of parental leave (PL) on maternal employment: in October 1995, the duration of universal parental benefit was suddenly extended from 36 to 48 months.

In the economic literature, the theoretical and empirical links between family policy and work-family reconciliation have been largely discussed in Western European countries (Ruhm, 1998; Thévenon, 2013)[1]. In this cross-country perspective, evidence shows that PL positively affects mothers' job continuity by providing a guaranteed return-to-work. However, Lalive et al. (2009, 2014) and Schönberg and Ludsteck (2014) note, for the cases of Austria and Germany respectively, that the two components of PL (job protection and benefit payment) generate heterogeneous incentives in terms of return-to-work. In the case where paid PL is relatively long (several years) and is extended in length or coverage, maternal employment outcomes are shown to be negatively affected: Piketty (2005) and Moschion (2010) analyse the 1994 French PL reform on mothers' fertility and labour market outcomes and on the correlation between fertility and labour supply respectively, and conclude that the extension of PL coverage induced by the reform has a negative impact on the participation rate of the eligible population. While literature usually focuses on mothers' labour supply, Ekberg, Eriksson and Friebel (2005) evaluate the impact of a Swedish PL reform on fathers' work-family balance outcomes, and conclude that although a month of PL reserved for fathers increases the time spent with their new-born children, it does not impact the division of childcare tasks in the medium run.

The interest in PL reform evaluations is consistent with the growing importance of the issue of female labour supply in the eyes of international institutions (European Commission, 2013; Todd, 2012). However, as far as we know, no empirical family policy evaluation has been conducted in the Czech Republic, and very few in post-transition Central and Eastern Europe (Balint and Kollo, 2007; Lockshin, 1999). This finding is even more surprising given the relative length and coverage of their PL schemes, which generate sizeable public expenditure and potentially far-reaching labour market outcomes.

[1] Ruhm (1998) finds that PL schemes, while increasing the gender wage gap, are positively correlated with mothers' labour market attachment. Appropriate PL duration and childcare policies can help to support both fertility and employment rates (Thévenon, 2013).

In this paper, we analyse a major reform of the Czech PL scheme, which remodelled long universal paid PL (three years) by disconnecting the job protection duration from the benefit payment duration. In 1995, the parental benefit duration was unexpectedly increased by 12 months compared to the job protection period, which remained unaffected (36 months). The predicted effects of this extension on mothers' labour supply are equivocal, since they are pulled by the cash transfer effect, not by the job protection effect. The extension of parental benefit increases the replacement rate and decreases incentives to return to work: the explicit goal of the reform was to maintain mothers in their role of out-of-market caregivers for a longer period. We assess whether and to what extent the goal was reached in terms of employment probability at the end of the job-protection period and beyond. This reform was announced and implemented on October 1st 1995, as a last-minute amendment to the State Social Support Act. Therefore this legal change came as a surprise, and represents an interesting case of natural experiment. All current and future recipients of parental benefit (i.e. mothers of children less than 3 years old at the date of the reform), became eligible for the extension. As a consequence, mothers were given the choice either to return to their previous employment at the end of the job-protected 36 months, or to give up the job protection and receive 12 extra months of benefits on the condition of taking full-time care of their young children. This reform was part of a re-familizing policy trend, but also an attempt to ease the pressures on the emerging labour market. As such, the objective of this paper is to assess the impact of this reform on mothers' labour supply and to disentangle the economic context of the reform from its real effects, using a difference-in-differences design applied to the Labour Force Survey. The results show that a large causal effect exists: the reform significantly lowered mothers' probability of employment at the end of PL, with the estimated effect ranging from 15% to 25% depending on the choice of the control group, and the impact is heterogeneous with respect to mothers' educational levels. Beyond the significant short-run effect, we show that mothers' employment probability was persistently negatively affected even 2 years after the end of benefit entitlement.

The paper is organized as follows. Section 2 is dedicated to the institutional background of work-family reconciliation policies during the communist era and after the transition to a market economy (2.1.), with a focus on the 1995 parental benefit reform (2.2.). Then we conduct an empirical evaluation of this reform. Section 3 presents the empirical strategy, while Section 4 discusses the data. We report the results in Section 5, and Section 6 concludes.

2 Background

2.1 Work-family reconciliation policies and practices before and after 1989

The Czechoslovak centrally-planned economy was characterised by strongly interventionist management of the labour force and virtually no unemployment. Obligatory employment did not apply to married women, but social and family benefits were conditioned by employment and female employment rates were particularly high compared with Western Europe (Bicakova et al., 2001). As early as 1955, women accounted for 42% of the Czechoslovak labour force (Haskova, 2007). Massive full-time female employment was accompanied by a decline in fertility:[2] between 1950 and 1970, the total fertility rate dropped from 2.8 to 1.9, falling below the replacement level in 1966 (CZSO, 2012). Prompted by this decline, a comprehensive pro-natalist family policy was implemented. Maternity leave was extended to 26 weeks in 1968, then 28 weeks in 1987. One year PL was established in 1964, and then extended to 2 years in 1970 and 3 years in 1989, on the condition of 2 dependent children in the household. Pre-transition family policy used two major tools: lengthening the leave for mothers with more than one pre-school aged child, and expanding the system of public day-care facilities. During the 1960s, the proportion of children attending kindergartens rose to 56% (compared with 26% in 1950), and part-time care was replaced by an all-day service for the majority of children, fulfilling the objective of taking childcare out of the family and liberating the female labour force (Haskova and Uhde, 2011). Between the 1950s and the 1980s, the proportion of children attending nurseries rose from 3% to 18% and that of children attending kindergartens rose from 26% to 81% (Haskova, 2007).

The 1989 transition to a market economy fundamentally changed the institutional context of work-family reconciliation. The previously state-controlled labour market was restructured and unemployment emerged (Svejnar, 1999). At the same time, the management of public expenditure called for less interventionist family policy and more market-based solutions to the childcare issue. There were extensive cuts to and a loss of interest in public childcare: while the supply of kindergartens decreased in line with the fertility trend, the decline in nurseries was sharper. In contrast with more than 1,000 nurseries (40,000 places) in 1990, only 60 nurseries (1,800 places) remained ten years later (Kucharova et al., 2009). The evolution of public childcare illustrates what Potucek (2001, p.201) calls "ideologically

[2] The fertility trend of the 1960s also reflects the wide availability and affordability of birth control.

induced animosity towards the institutions and policies of the welfare state". Post-transition family policy evolved in a pro-reform climate where individual responsibility was promoted as an alternative to the former state paternalism (Vecernik, 1993). Compared with the pre-transition era, family policy formulated no explicit interest in either female labour supply or fertility (Sobotka et al., 2008). As a result, new work-family balance arrangements emerged. In this context of economic uncertainty, Czech women postponed or rejected motherhood, which is reflected in an unprecedented drop in the fertility rate in the 1990s (1.13 in 1999 (CZSO, 2012)). In parallel, mothers gradually withdrew from the labour market, increasing the motherhood-related employment gap[3] (Kaliskova and Munich, 2012). In 1990, paid PL was extended to 3 years for all children, with no other condition than the children's age. Given the rather non-interventionist political climate, this generous change in the PL scheme might appear paradoxical, but it can be seen as an attempt to relieve labour market pressures and promote social peace. Therefore, in spite of the liberal discourse and contrary to international female employment trends, the PL scheme pursues a conservative target in terms of the gender division of labour, rather than aiming to increase female labour market participation.

2.2 Parental leave legislation in 1995

Between 1990 and 1995, PL lasted 3 years, that is to say 36 months, until the child's third birthday. Parental leave, which was synonymous with the period of protected employment, was combined with parental benefits for the same amount of time. The maximum duration of leave and benefit was the same for all children; an extension to 7 years for handicapped children being the only exception. Some parents were entitled to insurance-conditioned maternity benefits and entered parental leave at the end of maternity leave, while others were directly allocated parental benefits, but this distinction had no effect on the limit of entitlement to leave and benefit, which remained the child's third birthday. In 1995, only mothers (or widowers) were entitled to maternity leave. Fathers were entitled to parental benefit but without the job security provided by PL: the number of fathers receiving benefit was negligible. Parental benefit was paid at a flat rate: 1740Kc for each household in 1995, representing 22% of the average monthly gross wage[4] and 79% of the monthly full-time

[3] See Figure A in Appendix.
[4] 7,907Kc, average monthly gross wage of employees in the civil sector of the national economy in 1995, provided by the Czech Statistical Office.

minimum wage. Eligibility was universal, and the only condition was the provision of personal childcare, meaning that the children were not allowed to attend a childcare facility and the parents caring for them were not allowed to work more than 2 hours per day or earn more than 1800Kc per month.

In 1995, the Act no. 117/1995 Coll. entirely remodelled the social security system, creating three pillars: Social Insurance (including maternity benefits), Social Support (covering both universal and means-tested benefits for families with children), and Social Assistance for material needs. Within the Social Support branch, the payment of parental benefit was extended from 3 to 4 years. The amount was kept at a roughly similar level, 1848Kc per month, i.e. 19.7% of the average monthly gross wage and 74% of the monthly minimum wage. The benefit was fixed at 1.1 times the minimal subsistence income, hence meant to be reviewed periodically. The specific feature of this reform was that the benefit extension was not accompanied by any extension of the job-protected PL. Job protection, under the jurisdiction of the labour code and independent of the social legislation, was maintained at 36 months (i.e., until the child's 3rd birthday). Yet the benefit duration was increased to 48 months (until the child's 4th birthday). As a consequence, after the reform, parents coming to the end of the three years had to choose either to return to employment or to receive 12 more months of benefit, no longer accompanied by job protection. For mothers who did not have a job to return to, their alternative to the 12-month benefit extension was the 6-month unemployment benefit, conditioned on previous employment and cut by half after the first 3 months. The parental benefit option is therefore more generous in terms of accessibility and length, and encourages mothers to postpone their return-to-work at the risk of worse labour market prospects at the end of the extension.

This reform, as part of the Act on State Social Support, came into effect on October 1st 1995. It should be noted that the paragraph on the duration of parental benefit (§30) was not initially intended as part of the Act and was not discussed by the legislature. It was added later on by the executive, at the initiative of the Christian Democrat Union. Thus, on top of reducing unemployment and promoting social peace, the postponement of mothers' return to employment is also a conservative "familialist"[5] response to the pre-1989 policy of taking childcare out of the family.

On implementation of the act, the parental benefit scheme was reformed in the following way. On the date of implementation, payment was extended until the child's fourth

[5] As Saxonberg (2013) suggested, "familialist" policy should rather be referred to as "maternalist", since the stress is laid on the mothers' role as caregivers.

birthday for all current and future recipients. Eligibility was based on the date of the child's 3rd birthday (in other words, their birth date, 3 years earlier). For children whose 3rd birthday occurred before October 1st 1995, the mothers used up their benefits and leave rights before the reform and did not qualify for the benefit extension. For 3rd birthdays occurring after October 1st 1995, the mothers were still receiving the benefit at the moment the reform was implemented, and they were covered by the extension. The population of mothers who were eligible but close to the limit is the most interesting to analyse. For them, the extension came as a surprise,[6] and they could not be suspected of adapting their fertility strategies (number of children, date of birth) to the eligibility criterion. We are therefore particularly interested in the return-to-work patterns of those mothers who experienced the end of their PL shortly after the implementation of the reform.

3 Data and summary statistics

3.1 Data

We use the Czech Labour Force Survey (LFS), collected by the Czech Statistical Office on a quarterly basis starting from December 1992. Each quarter records approximately 70,000 individuals, and collects rich information about the socio-economic profile of each member of a household. The survey is representative of the Czech population via an individual weighting system. The LFS is a rotating panel, where each household remains in the sample for 5 consecutive quarters. The data are collected on a declarative basis, and provide a large battery of variables relative to each person's status in the labour market in the current quarter. For our estimation, we use 6 quarters around the reform (1995-1996), and we exploit the panel structure for the construction of our sample: we shortlist mothers who were present in the survey around the time when their youngest child reached 36 months, i.e. before and after the child's 3rd birthday. The surveys are not conducted with the aim of analysing work-family reconciliation, as they are focused primarily on employment, but they are rich enough to be exploited from this angle, and no other data of comparable extent exist for the post-transition context of the 1990s. Among the major drawbacks of the data, the panel rotation does not allow us to trace individuals' economic status history or to have proper knowledge of its evolution in the years before and after PL. Another limitation is that the LFS

[6] As explained above, this reform was added to the Act later on, so that it was unexpected.

does not record information about income. It would have been useful to take into account wages and benefits, and it would have been interesting to assess the effects on mothers' earnings of incentives to postpone the return to employment.

As for construction of the sample, mothers are identified in an indirect way in the LFS. We focus on women aged 15 to 39. The upper bound is sufficiently high, as we are only interested in mothers whose youngest child is no more than 3 years old, and it allows us to minimize the risk of confusion between mothers and grand-mothers in the household. The age of the child is given, unlike the date of birth. We therefore identify mothers at the end of their PL duration (36 months) via the child's transition from the age of 2 to the age of 3 between one quarter and the next. We identify the quarter where the child is 3 years old, compared with the previous record where he was aged 2, and we only keep mothers for whom these two successive records are available in the data. That is how we construct a "transition" variable, which signals that the youngest child in the household has turned from 2 to 3 years of age[7] - and so the mother has just left the PL scheme. This sample construction is restrictive and we lose many individuals. Inside the considered period, we lose mothers who enter the survey after the age transition and those who quit the survey before the age transition; at both bounds of the considered period we lose the mothers whose child's birthday occurs before or after the quarters used for the estimation. Despite the restrictions, the large size of the dataset allows us to constitute a sample of 1464 mothers, representative of 141,000 individuals on a national scale.

As for the choice of quarters, we focus our analysis on 3 quarters before and 3 quarters after the reform.[8] However, since we do not have any indication of the actual date of birth, we have to adapt the choice of quarters to our transition variable. For the very first quarter after the reform (last quarter 1995), if the variable indicates that the child has reached the age of 3 since the previous record (3rd quarter 1995), we cannot identify the date of birth precisely enough to determine whether the transition occurred before or after October 1st 1995. Depending on the interview week of a given household, the transition in age from 2 to 3 may have occurred before October 1st 1995 (non-eligible) or after October 1st 1995 (eligible). We cannot stipulate clearly that all the mothers in this wave of the survey are eligible for the extra 12 months of benefit, which is why the 4th quarter of 1995 is excluded from the estimation. We will therefore compare mothers who experienced the transition between January 1st 1995

[7] In addition to the transition to the age of 3, we identify in the same way mothers whose youngest child recently turned 4, 5 and 6, for complementary analysis and robustness checks.

[8] For one of the estimation strategies, we use the same number of quarters around different dates, 2 years prior and 2 years later.

and September 30th 1995 (non-eligible) with those who experienced the transition between January 1st 1996 and September 30th 1996 (eligible); in other words, our baseline sample comprises the quarters 1, 2 and 3 in 1995 and the quarters 1, 2 and 3 in 1996.

3.2 Summary statistics

Before focusing on the mothers, we compare basic summary statistics for the overall female population within the same age group (15-39). In 1995, the overall female population aged 15 to 39 in our data comprised 11,725 individuals. They were on average 26.2 years old and half of them were married. As for their educational level, one third were high-school graduates and 6.3% had pursued higher education. Of these women, 63.7% had children. According to the self-reported economic activity, which is our dependent variable, 54.6% were employed, while 16% were on ML or PL and 19.3% were students. 4.3% declared that they were unemployed.

Comparatively, the average age of mothers is higher than that of the overall population (29.6), and the proportion of married women among mothers is also higher, at 82.5%. As for the number of children, 46.4% have 1 child, 44.4% have 2 children, and 9 % have 3 children or more. They are slightly more educated than the overall population (by 3 percentage points for high school graduation and by 2 points for higher education), which may be partly linked to their higher average age. As for labour market activity, the proportion of employed is similar to the overall population for 1995, while the share of students falls to 4% and the share of ML and PL increases to 26%. These are the characteristics of all mothers, independently of the children's ages.

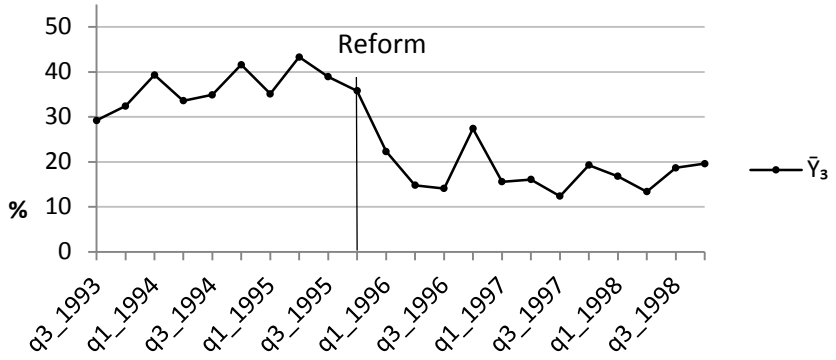
We then extract our sample of eligible and control individuals, that is to say mothers whose youngest child turned 3 within 3 quarters before (non-eligible) or after (eligible) October 1st 1995. In a second step, we broaden the sample by comparing with cohorts around two dates when no reform occurred (1997-1998 and 1993-1994), and with a different control cohort around the same date (1995-1996), of mothers whose youngest child turned 4 rather than 3. The eligible and control samples feature similar characteristics; the statistics are provided in Table B.1 in Appendix. The alternative control cohorts are also similar with respect to the dependent and independent variables; the statistics are provided in Table B.2 and Table B.3 in Appendix.

As regards the employment rate of our sample, the share of employed mothers displays a substantial decrease over the period of interest. Mothers became less likely to be

employed at the end of their PL, and we will examine the causal relation between the 1995 reform implementation and this observed decline in the remainder of the paper. It should be noted that the period of interest is not subject to other legislative shocks (among other things, the fiscal system was stable: a major reform introducing joint taxation was only implemented in 2005[9]). The supply of public childcare was also relatively stable over the period 1995-1996, after a steep decline in 1990-1991.[10]

FIGURE 1

SHARE OF EMPLOYED MOTHERS ONCE CHILD REACHES AGE 3



Note: At each quarter, mean outcome for mothers whose youngest child recently reached age 3. *Source*: LFS, own calculations.

4 Empirical Strategy

We use two estimation methods: the preliminary before/after comparison and the conclusive difference-in-differences estimation using two alternative choices of control group. We want to account for mothers' return-to-work patterns after the 36 months of parental leave, and our hypothesis is that the 1995 parental benefit reform operates as a disincentive to return to work, by increasing the value of staying at home. The predicted effect of the reform is to lower the proportion of mothers who are employed once parental leave is finished. In the medium run, this extension of labour market withdrawal might weaken labour market attachment and reinforce career discontinuities, especially knowing that it leads to the loss of job protection. Previous evidence shows that parental leave schemes mostly increase post-maternity employment in the medium run (Ruhm, 1998) or at least do not decrease it (Lalive

[9] For a study of its impact on the female labour supply, see Kaliskova (2014).

[10] The number of nurseries fell from 1043 to 486 in 1990-1991, and has slowly declined since then (Kucharova et al., 2009).

and Zweimüller, 2009), depending on the way job protection and cash transfers are combined. The specific feature of this reform is that it creates a disparity between the duration of job protection and the duration of benefit, in favour of the latter. Schönberg and Ludsteck (2014) and Lalive and Zweimüller (2009) analyse a series of PL scheme reforms in Germany and Austria, and demonstrate that when benefits are longer than job protection, this is likely to lower mothers' post-maternity labour market attachment.

We use a similar method to theirs in our evaluation of the impact of the reform: a difference-in-differences design applied to the short-run return-to-work probability. What are the testable hypotheses of the reform's impact on mothers' return to work? The extension of the flat rate benefit (19.7% of the average wage) takes place at the expense of the guaranteed return to work: we can therefore expect a heterogeneous effect on mothers according to their labour market attachment and labour income. Besides, at the moment of the reform implementation, the economic situation was deteriorating and unemployment was rising. The extension of the benefit could then be used as a tool to delay return to activity for mothers with low labour market perspectives. Yet the unemployment threat may also encourage mothers to value the job protection more and opt for a return to guaranteed employment instead of 12 extra months of benefits. In order to test these predictions, we estimate the causal effect of the reform on mothers' employment probability right after the end of their job protected PL. In other words, we identify the impact of the extension of benefit payments from 36 to 48 months on mothers' employment probability after the 36^{th} month. Our outcome of interest is the employment status at the end of parental leave, i.e., as soon as the child turns 3. For this purpose, we consider mothers' economic activity status directly at the quarter following the transition of the child's age from 2 to 3. This employment status variable is self-reported, and the choice of answers comprises ML, PL, unemployment or staying at home for childcare purposes. At this moment, parental leave entitlements expired less than 3 months ago, and the potential difference in labour supply between eligible and non-eligible mothers can be observed. The following table sums up the mechanism of the 1995 reform for a clear understanding of the evaluation to come.

TABLE 1 DESIGN IF THE 1995 REFORM

	Targeted by the reform	*Job protection (=PL)*	*Parental benefit*	*Child's age on October 1 1995*	*Situation after Oct 1 1995*
Child born before Oct 1 1992	No	36 months	36 months	More than 36 months (already aged 3)	PL over, benefit payment over
Child born after Oct 1 1992	Yes	36 months	**48 months**	Less than 36 months (**not yet aged 3**)	PL over, **12 extra months of benefit**

As a preliminary step, we estimate a simple before/after comparison, where mothers from the 1st row of the table above serve as the control group (they quit the parental benefit system between January and September 1995; they are non-eligible but close to the limit), and mothers from the 2nd row of the table serve as the treated group (the transition from 2 to 3 years is recorded between January and September 1996, they are entitled to 12 extra months of benefits but close to the limit). In other words, we compare the employment probability of mothers whose child reached 36 months shortly before October 1st 1995 to that of mothers whose child reached 36 months shortly after October 1st 1995. We estimate a linear probability model, where we correct for heteroskedasticity. However, this approach is insufficient to reveal casual relation between the reform and the outcome of interest, because the observed difference may be affected by maturation bias: we do not control for the fact that Czech mothers may simply lower their labour supply from one year to the next due to the business cycle or other economic and social factors. Moreover, seasonality may affect the outcome. As we cannot assume the temporal stability of mothers' employment rates over the considered period, we continue with a different method, applying a double comparison.

We use the difference-in-differences design, comparing the evolution of the employment rate within the eligible cohort around the intervention date with that of a different, non-eligible cohort. We assume that mothers have fairly similar individual characteristics in these 2 cohorts.[11] We consider such covariates as marital status, age, education and number of children. This double comparison captures possible seasonality and, most importantly, possible trends in the outcome. We adopt two complementary approaches in the choice of the control cohort. The first strategy is similar to Schönberg and Ludsteck (2014) and Lalive et al. (2014): we compare the evolution of eligible mothers' employment

[11] See Tables B.2 and B.3 with summary statistics of the sample, in Appendix.

probability around the reform date with the same evolution around a date when no reform occurred. Here, we select October 1st 1997 as the non-reform date: we compare the change occurring after the reform implementation with the same date 2 years later. As we use 3 quarters before and after the reform in the regression, we have to settle for this 2 year distance between the reform date and the non-reform date in order for the two cohorts not to overlap. This is a first attempt to isolate the causal impact of the reform on mothers' return-to-work patterns, motivated by very similar characteristics of the eligible and control groups. They are identical with respect to the age of the youngest child (who recently turned 3), and differ only with respect to eligibility for the benefit extension, imposed by the date of implementation of the reform.

However, in the context of the first decade of the transition, marked by increasing imbalances on the Czech labour market, it might appear problematical to assume the common trend of the outcomes of the treated and control cohort 2 years apart. This is a very plausible pitfall of the causal analysis, as the reform aims to withdraw mothers from employment in a context of rising unemployment, and therefore raises the issue of the endogeneity of its purpose with respect to the economic situation. In order to avoid capturing the deterioration of the labour market situation from one year to another instead of the genuine impact of the reform, we conduct a complementary analysis with an alternative choice of control group. In this second approach, we centre the analysis on the 3 quarters immediately preceding and following the implementation of the reform (1995-1996), and we compare the eligible mothers to a group of non-eligible mothers who differ slightly in terms of the age of the youngest child. We compare the eligible group, i.e. mothers whose child turned 3 just before or after the reform, with the control group, i.e. mothers whose child turned 4 just before or after the reform. This approach offers advantages and shortcomings compared with the previous one. As a clear advantage, this strategy captures the possible general trend in falling employment rates among mothers over the period of interest, leading to a more precise estimate of the genuine effect of the reform. On the other hand, this choice of control group is more equivocal with respect to the similarity of the sample's labour supply behaviour, as the end of PL entitlements is more distant for the control group than for the treated group. For these reasons, we use both approaches in the difference-in-differences estimations, and obtain a range of estimated values from which we can then draw conclusions.

5 Results

Due to its length, generosity and universal access, the parental leave and benefit system is a major criterion in Czech mothers' labour market participation decisions. The 1995 reform substantially changes the benefit payment setup and we can expect this to have an impact on mothers' return to work between the end of job-protected PL and the end of benefit payments. Estimation results confirm this prediction and indicate a significant negative causal relation between the extension of the benefit and the probability of employment in the months following the end of PL.

5.1 Before/after comparison

A simple before/after comparison using a linear probability model indicates that the probability of employment fell by 22% for mothers who were targeted by the reform and who became eligible for the 12 extra months of benefit (without job-protected PL) between January 1st 1996 and September 30th 1996, as compared with mothers who were non-eligible and who ended their PL between January 1st 1995 and September 30th 1995. We correct for heteroskedasticity, and we show that neither the significance nor the size of the effect varies notably while controlling for individual characteristics.

TABLE 2 IMPACT OF THE 1995 REFORM ON POST-PL EMPLOYMENT

Linear Probability Model

	Dep. variable: To be employed	
	(1)	(2)
Treatment	-0.220***	-0.216***
	(0.0321)	(0.0322)
Superior Educ		0.165**
		(0.0663)
Controls		X
Observations	744	744

*** p<0.01, ** p<0.05, * p<0.1

Notes: Robust standard errors in parentheses. This table reports the employment probability at the end of the PL, comparing eligible (1996) and non eligible (1995) mothers, using age, education, matrimonial status and number of children as covariates.

Source: LFS, own calculations

This simple before/after comparison over 3 quarters before and 3 quarters after the reform reveals a significant fall in mothers' employment probability, by more than one fifth, with a differentiation by educational level which we will exploit in the following subsection. The stability and the scale of the result suggest that the reform has indeed changed mothers' return-to-work patterns; however it is not sufficient to assert causality.

5.2 Difference-in-differences: comparison over time

In order to get closer to a possible causal interpretation of the fall in mothers' post-PL employment probability, we compare the observed change around October 1995 to a change around a date when no reform occurred (October 1997). The results obtained with this difference-in-differences method corroborate the intuition from the preliminary results; the effect of the reform now appears to be even slightly higher (by 2 percentage points). In the following table, the first column reports the results from the difference-in-differences strategy comparing 6 quarters in 1995/1996 (3 before and 3 after the implementation of the reform) with 6 quarters in 1997/1998. In the second column we control for individual characteristics, and in the two remaining columns we restrict our sample closer to the reform date: only 2 quarters before and after the reform, and then 1 quarter before and after.

TABLE 3 IMPACT OF THE 1995 REFORM ON POST-PL EMPLOYMENT

Difference-in-Differences 1st Approach

	Dep. variable: To be employed			
	(1)	(2)	(3)	(4)
Treatment	-0.236***	-0.231***	-0.226***	-0.184**
	(0.0420)	(0.0416)	(0.0511)	(0.0710)
Seasonality	0,0159	0,0149	0,0101	0,0335
	(0.0271)	(0.0267)	(0.0318)	(0.0427)
Trend	0.244***	0.236***	0.252***	0.253***
	(0.0315)	(0.0314)	(0.0388)	(0.0529)
Education				
Graduated HS		*Reference value*		
None or Elementary		-0.138***	-0.117***	-0.136**
		(0.0330)	(0.0416)	(0.0578)
Did not graduate HS		-0.0593**	-0.0712**	-0.0962**
		(0.0233)	(0.0286)	(0.0397)
Superior Educ		0.155***	0.112*	0.147*
		(0.0488)	(0.0608)	(0.0796)

Controls		X	X	X
Restricted sample 1			X	
Restricted sample 2				X
Observations	1464	1464	998	529

*** p<0.01, ** p<0.05, * p<0.1

Notes: This table reports the estimates for the employment probability at the end of the PL, comparing treated cohort (95/96) and non-treated cohort (97/98); using age, education, matrimonial status and number of children as covariates. Restricted samples 1 and 2 are smaller samples (2q and 1q) closer to the reform date.

Source: LFS, own calculations

The size of the effect, while still significant at the 1% level, remains at around 23% when we restrict the number of quarters to 2 instead of 3 on each side of the intervention date. The restriction to only 1 quarter before and after provides a less clear-cut result. Significance falls to the 5% level and the size of the effect falls to 18.4%. It should be noted that the sample size becomes very low with this restriction: only 285 treated and 244 control individuals. Compared with the before/after comparison, the difference-in-differences estimation features 2 additional variables, which capture seasonality and the underlying trend. The seasonality parameter appears to be non-significant, which is consistent with the sample structure: we compare large fractions of a year (9 months before and 9 months after the treatment), with a 2-year interval. As to the trend, the coefficient is sizeable[12] and significant, which is to be expected, given the evolution of the business cycle over the period. Indeed, the probability of mothers' employment was 22% higher in the first cohort (1995-1996) than in the second one (1997-1998), most likely also due to the worsening situation on the labour market. With the rising threat of unemployment, workers' prospects in the labour market deteriorated and the overall employment rates in the Czech labour force decreased. The scale of the effect might also be attributed to the fact that although no reform had occurred for mothers in the control group, they were in fact all affected by the reform of 2 years earlier, instead of all being unaffected. Therefore, the 1997-1998 cohort might not be the clearest comparison group, and selecting the control cohort 2 years before the reform (1993-1994), instead of 2 years after the reform, would be a good alternative. However, the poor quality of the very first quarters of the Labour Force Survey at the beginning of the 1990s does not

[12] The positive sign might be misleading, but the interpretation of the coefficient is the probability of employment in the first cohort (1995-1996), taking the second cohort as reference (1997-1998). The employment rates were higher in the first period, and for this reason the coefficient is positive.

allow us to study such a cohort. We can only build such an estimation around October 1st 1993 if we restrict ourselves to 1 quarter on each side of the date, instead of 3.[13]

TABLE 4 IMPACT OF THE 1995 REFORM ON POST-PL EMPLOYMENT

Difference-in-Differences 1st Approach

	Dep. variable: To be employed			
	(1)	(2)	(3)	(4)
Treatment	-0.236***	-0.231***	-0.268***	-0.251***
	(0.0420)	(0.0416)	(0.0797)	(0.0799)
Education				
Graduated HS		*Reference value*		
None or Elementary		-0.138***		-0.174**
		(0.0330)		(0.069)
Did not graduate HS		-0.0593**		-0.0737*
		(0.0233)		(0.0438)
Superior Educ		0.155***		0.203***
		(0.0488)		(0.0765)
Controls		X		X
Control cohort 97-98	X	X		
Control cohort 93-94			X	X
Observations	1464	1464	563	563

*** p<0.01, ** p<0.05, * p<0.1

Notes: This table reports the estimates for the employment probability at the end of the PL, comparing treated cohort (95/96) and non-treated cohort (97/98 and 93/94); using age, education, matrimonial status and number of children as covariates.

Source: LFS, own calculations

As already mentioned in the preliminary before/after comparison, one variable among the individual characteristics appears particularly relevant for further interpretation of the reform effect: the educational level. The difference-in-differences estimation, reported above, confirms that the response to the reform is strongly stratified across mothers' educational attainment. The sign of the parameter is consistent with general knowledge about the labour market attachment of women with different educational levels. Taking the group "graduated from high school" as reference, mothers with no education or elementary education have 13.8% lower probability of employment at the end of PL, while mothers with a higher level than elementary school but who are not high school graduates have 5.9% lower probability. By contrast, mothers who completed higher education have a significantly higher probability

[13] The summary statistics for this cohort are reported along with the other cohorts in Table B.1 in Appendix.

of employment at the end of PL, by 15.5% in the baseline specification and as much as 20.3% in the alternative cohort estimation. Therefore, mothers with lower education seem to be significantly more sensitive to labour market withdrawal incentives. The educational level can be used as a proxy for qualification and hence for labour income: the interpretation here is that less-educated mothers are more enticed by the extension of the flat-rate parental benefit at the expense of employment, as the replacement rate is higher for them than for high-paid female workers. When we estimate the impact of the reform on subsamples of mothers according to their educational attainment, two groups stand out: mothers who completed elementary school but did not graduate from high school (mostly from the apprenticeship track which does not award a high-school degree) and mothers who graduated from high school but did not pursue higher education. The following table demonstrates the strong heterogeneity of the impact of the reform around the high-school graduation pivot.

TABLE 5 HETEROGENEOUS IMPACT OF THE 1995 REFORM BY EDUCATION

Difference-in-Differences

	Dep. variable: To be employed	
	(1)	(2)
	Did not graduate HS	Graduated HS
Treatment	-0.309***	-0.191***
	(0.0599)	(0.0706)
Observations	626	583

*** p<0.01

Robust standard errors in parentheses

Notes: This table reports the estimate for the employment probability at the end of the PL, following our baseline specification (1st approach), for 2 subsamples of mothers, using age, matrimonial status and number of children as covariates.

Source: LFS, own calculations

However, as soon as we include the tails of the distribution on both sides (no education or elementary education on one side and higher education on the other), the results become more ambiguous. The educational level does not seem to be inversely correlated with the scale of the reform's negative impact on employment in a clear and linear way. Our analysis is limited by very small sample sizes towards each end of the educational level distribution, but the results do suggest that we should be cautious in interpreting the impact of the reform on very high- and very low-skilled female workers. While the impact on very low-skilled mothers appears to be non-significant (their employment rate was already very low

before the reform, on average 10.7% in our period of interest), we detect a significant and surprisingly strong impact on very high-skilled mothers. This result suggests that highly-educated mothers do respond to the reform, despite the low financial incentive offered by the flat-rate benefit. One of the reasons might be that their decision is not driven solely by economic rationality, but also by dominant social norms which explicitly promote the mother's role as main caregiver during the first years of a child's life.[14] Another complementary factor might be informal arrangements with employers that reduce the cost of the delayed return-to-work, or simply a lower risk of unemployment due to better prospects on the labour market compared with lower-skilled female workers. Fathers' educational level (still as a proxy for income) might partly explain mothers' labour market behaviour, yet this control variable systematically appears as non-significant, be it for highly-educated mothers or the overall sample.[15]

5.2 Difference-in-differences: comparison over groups

Until now, our estimation method has been built on a comparison of mothers before and after the reform with a similar group of women at a different point of time, when no reform occurred. In this subsection, a different control group will be considered in order to test the previous results and to capture unequivocally the possible business cycle effects. Given that other factors might have influenced mothers' employment rate in 1995-1996, such as the expected and broadly advertised costs of the transition in terms of unemployment or the decreasing availability of public childcare, we centre the estimation on these two specific years. The legislative change applies to mothers whose child recently turned 3, therefore the labour market participation of mothers whose child recently turned 4 should remain unchanged before and after the reform.[16] Or, more precisely, their employment probability may differ before and after the reform if there is a trend of decreasing employment rates, but this would be independent of the PL reform. If we assume that the employment rate of the eligible mothers (with children who turned 3 after October 1st 1995) would have followed the

[14] See the work and the numerous public appearances of the influential Czech psychologist Zdenek Matejcek, dedicated to establish the negative effect of institutional childcare on child's development and well-being, and to promote the role of family as care-giver.

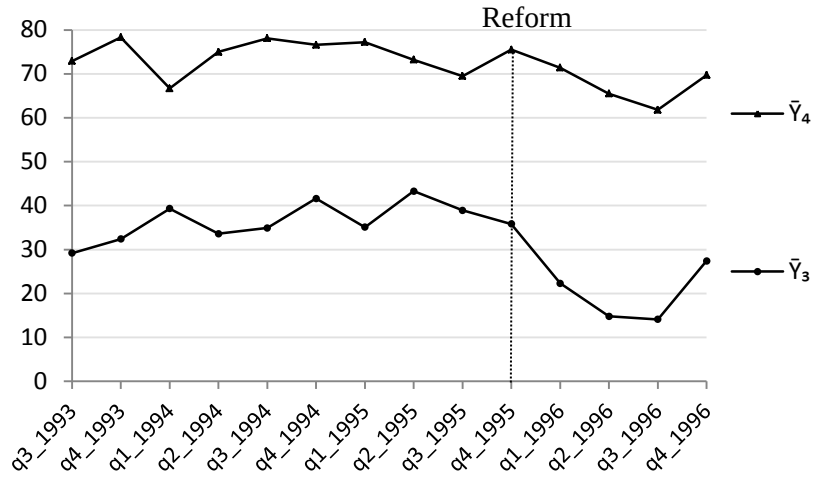
[15] Incorporating spouses' education into the analysis does not appear to bring additional understanding to mothers' return-to-work patterns, either as covariate or as subsampling dimension. Results are available upon request.

[16] We could also consider mothers of children aged 2, but their employment rate is very low, on average 6.4% for the period of interest, and fairly constant over the decade. As such, this control would be relatively meaningless.

same evolution as that of mothers with children who turned 4 over the same period (non-eligible),[17] the difference-in-differences genuinely controls for the business cycle and provides us with a relatively precise estimate of the causal effect of the reform. The following chart plots the employment rates of the eligible and non-eligible mothers around the reform date.

FIGURE 2

SHARE OF EMPLOYED MOTHERS ONCE CHILD REAGES AGE 3 AND 4



Note: Mean outcome for mothers when youngest child reaches age 3 (Y_3) and age 4 (Y_4). $\bar{Y}_3$: mothers eligible to the reform in October 1995. $\bar{Y}_4$: mothers non-eligible to the reform in October 1995.
Source: LFS, own calculations.

We observe a declining trend in employment rates for the non-eligible, and a markedly steeper decline for the eligible. Assuming that the trend would have been similar if no reform had occurred, the difference in slope represents the causal impact of the reform. This complementary approach lowers the size of the estimated effect of the reform by 8 points, bringing it down to 15.3%; however, it validates the high significance of the result.

[17] As noted in the previous section, this assumption is open to criticism: the non-eligible group had exhausted all PL entitlements one year prior to the observed period and may react differently to the business cycle than mothers whose PL has expired very recently.

TABLE 6 IMPACT OF THE 1995 REFORM ON POST-PL EMPLOYMENT

Difference-in-Differences 2nd Approach

	Dep. variable: To be employed	
	(1)	(2)
Treatment	-0.155***	-0.153***
	(0.0490)	(0.0486)
Controls		X
Observations	1367	1367

*** p<0.01

Notes: This table reports the estimates for the employment probability at the end of the PL, comparing eligible mothers (child aged 3) and non-eligible mothers (child aged 4) from the same cohort (95/96) ; using age, education, matrimonial status and number of children as covariates.

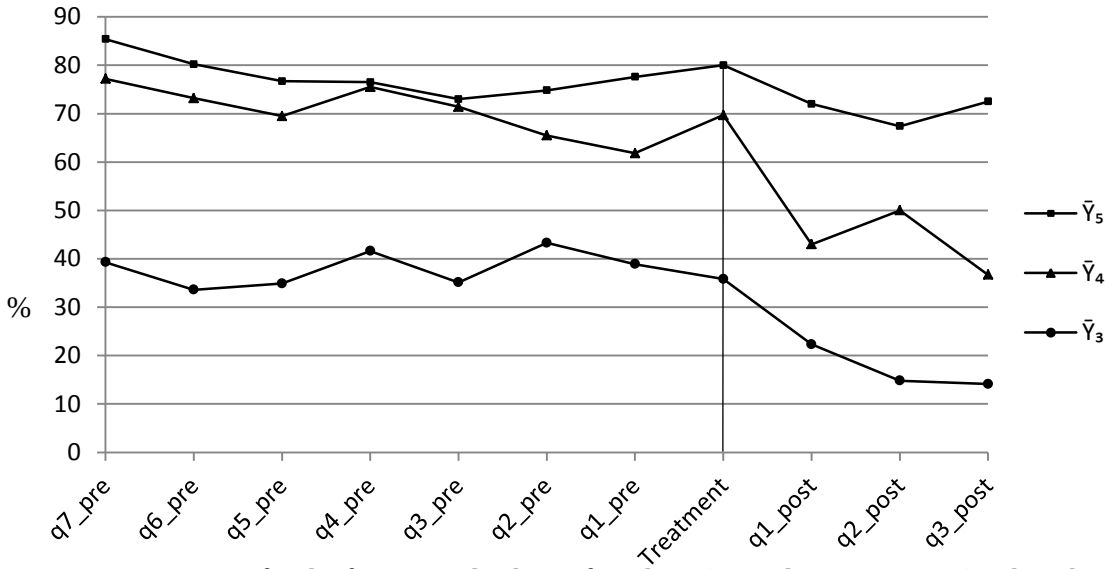
Source: LFS, own calculations

5.3 Persistency of the impact

Finally, apart from being an alternative control group, the population of mothers with children who recently turned 4 also allows us to investigate possible medium-term effects of the reform. If we consider our sample of eligible mothers from a cohort perspective, we note that children who turned 3 in 1996 will turn 4 in 1997, then 5 in 1998 and so on. They are part of the first cohort exposed to the treatment in 1996, and will be identifiable in the data in the following years thanks to this mechanism of increasing age. As the LFS data have an over-lapping structure, these are not the same individuals as in the treated sample in 1996, but they are assumed to be a random sample of the same population. As a consequence, this provides us with an insight into the return-to-work patterns of the first eligible cohort one year after the reform implementation, i.e., at the end of the benefit extension and one year after the end of their job-protected PL. What we observe is an acceleration of their withdrawal from employment – less than 30% of mothers were employed at the end of 1997 – which coincides with the entry into the sample of mothers previously exposed to the benefit extension. While the overall decline in employment rates may be business-cycle related, the change in rhythm suggests that a substantial negative effect on female employment persists beyond the 12 months intended by the legislator. The same intuition can be applied to mothers with a youngest child aged 5, supposing that we lag for one extra year. Mothers whose children turned 5 in 1998 are part of the same population whose children turned 4 in 1997 and 3 in

1996 (and therefore the first to be eligible for the benefit extension). If the reform had a persistent impact beyond the 12 months covered by the benefit extension, then we should observe a fall in the employment rate as soon as the eligible mothers appear in the respective groups: after October 1995 for mothers of children aged 3, after October 1996 for mothers of children aged 4, and after October 1997 for mothers of children aged 5. The following chart reports the share of employed mothers with respect to the age of the youngest child (who "just turned" 3, 4 and 5, respectively, before and after the first quarter of eligibility), and we do indeed detect a persistent effect in the medium-run.

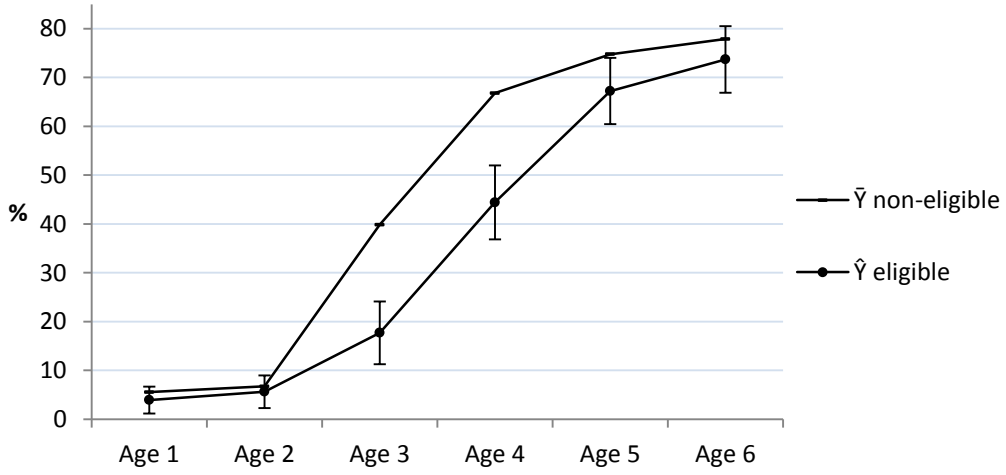
FIGURE 3 MEDIUM TERM EFFECTS. SHARE OF EMPLOYED MOTHERS BY AGE OF THE YOUNGEST CHILD



Note: Mean outcome for the first treated cohort of mothers (treated Jan-Sept 1996), when the youngest child turned 3 ($\bar{Y}_3$), then 4 ($\bar{Y}_4$) and 5 ($\bar{Y}_5$).
$\bar{Y}_3$: immediate effect, observed in 1996. $\bar{Y}_4$: observed in 1997. $\bar{Y}_5$: observed in 1998.
Source: LFS, own calculations.

For the sake of clarity, we have reported the evolution of employment probability of these 3 groups of mothers from a cohort perspective, and compared the return-to-work profile of this first treated cohort with that of the last non-treated cohort. As the youngest child gets older, we observe a significant delay in return-to-work for treated mothers.

FIGURE 4 MEDIUM TERM EFFECTS. RETURN-TO-EMPLOYMENT PROFILES OF TREATED AND NON-TREATED



Note: This chart reports the estimated delay in return-to-work of the first cohort of treated mothers ($\hat{Y}$) compared to the last cohort of non-treated ($\bar{Y}$). The difference in employment probability is significant for age 3, 4 and 5.

For the interpretation of the charts, let us recall that each point plots the proportion of employed mothers in the population of mothers whose children turned 3, 4, 5 and then 6 between the last and the current quarter of the survey. For the age of 3, for instance, these are mothers whose parental leave has expired very recently. For the age of 4, they are mothers whose parental benefit extension has expired very recently. Therefore, possible delays and rigidities in the labour market might account for a part of the observed evolution: we are looking at a very immediate effect, and it is likely that certain mothers will return to the labour market within the following months. However, we observe an unambiguous change in the rhythm of return-to-work of mothers of children aged 3, and a decreasing but persistent effect for mothers of children aged 4 and 5. The before/after comparison for each group of mothers provides evidence of a highly significant change for eligible mothers (22% for children aged 4 and 7.5% for children aged 5), confirmed both in size and significance by the difference-in-differences strategy.[18]

These results extend the short-term validity of the negative impact on mothers' employment rate beyond the 12 months induced directly by the benefit extension. Mothers still remain out of employment in larger proportions 2 years after the end of the benefit entitlement. Beyond that period, however, the impact analysis becomes inconclusive. The remaining question is whether this impact on employment probability reflects a decrease in activity rate or an increasing unemployment rate. However, our analysis does not allow us to

[18] Detailed regression results are available upon request.

assert whether one of these two channels is significantly predominant: the labour supply channel is sizeable and significant for mothers with children aged 4, yet only the unemployment channel appears significant one year later.

6 Conclusions

Czech post-transition family policy moved away from the previous emphasis on female labour market participation and strong intervention in pre-school childcare supply. The new trend is towards family-conservative policy, and the evolution of the parental leave scheme is its epitome. The 1995 Act on State Social Support introduced an unexpected 12-month extension in parental benefit payments for all current and future recipients of this universal benefit. This extension led to a disconnection between the duration of job-protected parental leave and the duration of parental benefit, leaving mothers to choose between 12 extra months of benefits or a secure post-PL return to work. We find a substantial impact of this reform on mothers' probability of employment within the first post-PL quarter. The probability of employment of the eligible mothers was 23 percentage points lower than that of the non-eligible pre-reform cohort. Interestingly but unsurprisingly, the decrease in employment probability is heterogeneous with respect to educational attainment. The impact is stronger for women who have not graduated from high school (30.9%), compared with those who have (19.1%). However, results for educational levels at each end of the distribution are less clear-cut. The second approach, where we take an alternative control group, provides a lower estimate of the overall effect of the reform on eligible mothers (15.6%), while confirming its high significance.

This reform had an explicit objective of withdrawing mothers from the labour market, as a short-term response to the threat of growing unemployment, and we confirm that the reform achieved its intended effect. However, the reform still appears to have a negative impact on the employment rates of the first eligible cohort of mothers 2 years after the end of the extended benefit payment, i.e., until their youngest child is 5 years old. By increasing the duration of career discontinuities, this medium-term effect is likely to weigh on mothers' subsequent wages and pensions. The lack of good quality data for this period is the major obstacle for analysing this turbulent post-transition legislation and its effects on labour market outcomes. This could be a possible explanation of the scarcity of family and social policy evaluations in the Czech Republic, along with other Central Eastern European countries. Yet

the persistence of the phenomenon until the present day, 10 years after accession to the European Union, suggests rather a certain lack of interest.

The European Union social integration process has played a major role in modelling family policy with respect to female employment, as the European Commission emphasises the importance of female labour market attachment and public childcare services as tools for increasing mothers' labour supply. While childcare supply is still considered a secondary issue, the parental leave scheme has been remodelled since 2008, in a way that follows the European trend and encourages a faster return to employment: the effects of this policy shift remain to be assessed.

References

Balint M., Kollo J. (2008), "The labour supply effects of maternity benefits", in Fazekas, Cseres-Cergely, Scharle (eds), *The Hungarian labour market, 2008. Review and Analysis*, Institute of Economics, Budapest

Bicakova A. et al. (2001), "Labor supply after Transition: Evidence from the Czech Republic", *Czech Journal of Economics and Finance*, Vol.61, pp. 327 - 347

CZSO (2012), *Czech Demographic Handbook 2011*, CZSO, Prague

Ekberg J., Eriksson R., Friebel G. (2013), "Parental Leave – A Policy Evaluation on the Swedish "Daddy-Month Reform", *Journal of Public Economics*, Vol.97, pp. 131 - 143

European Commission (2013), *Council recommendation on the National Reform Programme 2013*, 7 p.

Haskova H. (2007), "At home, in nursery or in kindergarten? Family and institutional care of pre-school children in the Czech society between 1945 and 2006", *Gender, Egality of chances, Research*, Vol. 8, n°2, pp.15-26 ("Doma, v jeslich, nebo ve skolce? "Rodinna a institucionalni pece o predskolni deti v ceske spolecnosti 1945-2006, *Gender, rovne prilezitosti, vyzkum*)

Haskova H., Uhde Z. (eds.) (2011), *Women and Social Citizenship in Czech Society: Continuity and Change*, Institute of Sociology, AS CR, 245 p.

Kaliskova K., Munich D. (2012), *Czech women: untapped potential*, CERGE-EI, 15 p.

Kaliskova K. (2014), "Family Taxation and the Female Labor Supply: Evidence from the Czech Republic", *Labour Economics*, Vol.30, pp 234-244

Kucharova V., Svobodova K. (2006), *Network of day-care facilities for pre-school-age children in the Czech Republic*, Report of the Research Institute for Labour and Social Affairs (RILSA), 57 p.

Kucharova V. et al. (2009), *Day care for children of pre-school and early-school age*, Report of the Research Institute for Labour and Social Affairs (RILSA), 214 p.

Lalive R., Zweimüller J. (2009), "Does Parental Leave Affect Fertility and Return-to-Work? Evidence from Two Natural Experiments", *Quarterly Journal of Economics*, Vol.24, n°3, pp. 1363-1402

Lalive R., Schlosser A., Steinhauer A., Zweimüller J. (2014), "Parental Leave and Mothers' careers: The Relative Importance of Job Protection and Cash Benefits", *Review of Economic Studies*, Vol.81, pp.219-265

Lockshin M. (1999): "Household Child Care Choices and Women's Work Behavior in Russia", Policy Research Working Paper #2206, The World Bank, 35 p.

Moschion J. (2010), "Reconciling Work and Family Life: The Effect of the French Paid Parental Leave", *Annals of Economics and Statistics*, n°99/100, pp. 217-246

Piketty T. (2005), "L'impact de l'allocation parentale d'éducation sur l'activité féminine et la fécondité en France, 1982-2002", *Les Cahiers de l'INED*, vol. 156, pp. 79-109

Potucek M. (2001), "Czech social reform after 1989: concepts and reality", *International social security review*, Vol. 54, n°3, pp. 81 - 105

Ruhm C.J. (1998), "The Economic Consequences of Parental Leave Mandates: Lessons from Europe", *Quarterly Journal of Economics*, n°113, pp. 285-317

Saxonberg S. (2013), "From Defamilialization to Degenderization: Toward a New Welfare Typology", *Social Policy & Administration*, Vol. 47, pp. 26-49

Schönberg U., Ludsteck J. (2014), "Expansions in Maternity Leave Coverage and Mothers' Labor Market Outcomes after Childbirth", *Journal of Labor Economics*, Vol. 32, n°3, pp. 469-505

Sobotka T. et al. (2008), "Czech Republic : A rapid transformation of fertility and family behaviour after the collapse of state socialism", *Demographic Research*, n°19, pp. 403 – 454

Svejnar J. (1999), "Labor Markets in the Transitional Central and East European Economies", in Ashenfelter O., Card D., *Handbook of Labor Economics*, Vol. 3b, pp. 2810-2857

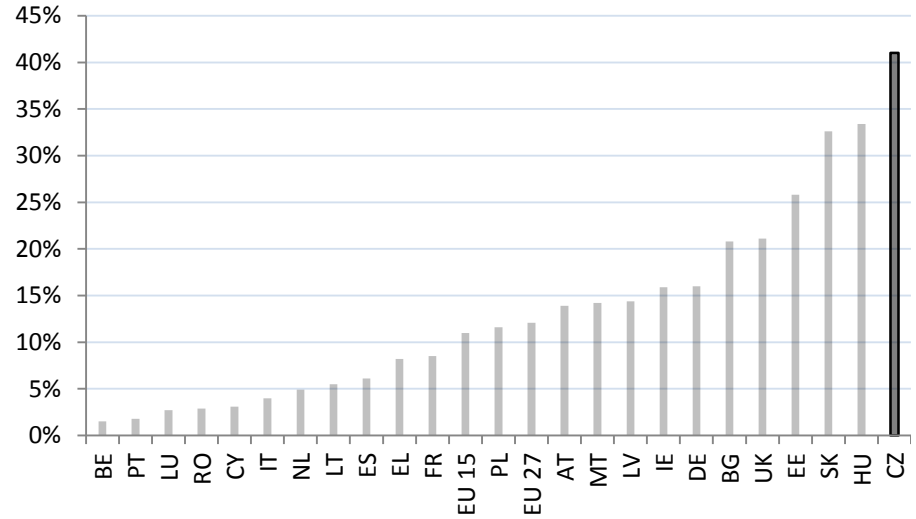
Thévenon O. (2013), "Drivers of Female Labour Force Participation in the OECD", *OECD Social, Employment and Migration Working Papers*, n°145, 56 p.

Todd P. (2012), "Effectiveness of interventions aimed at improving women's employability and quality of work: a critical review", Policy Research Working Paper Series 6189, The World Bank, 78 p.

Vecernik P. (1993), "Escaping from socialist paternalism: Social policy reform in the Czech Republic", *Czech Sociological Review*, Vol. 1, n°3, pp. 149-172

Appendix

FIGURE A EMPLOYMENT GAP – WOMEN WITH CHILDREN UNDER 6 YEARS OLD



Note: The maternal employment gap is defined as the difference in employment rates between women with and without children of pre-school age.
Source: EU Labour Force Survey, in European Commission Indicators for monitoring the Employment Guidelines (2010)

TABLE B SUMMARY STATISTICS OF THE SAMPLE

	B.1 SUMMARY STATISTICS (1)		B.2 1st APPROACH			B.3 2nd APPROACH	
Individual Controls	Non treated (Jan - Sept 1995)	Treated (Jan - Sept 1996)	Reform cohort (1995-1996)	Control cohort 1 (1997-1998)	Control cohort 2 (1993-1994)	Eligible (Age 3)	Non eligible (Age 4)
Mean age	27.5	27.7	27.6	27.7	28.3	27.6	28.4
Age groups, %							
15-24	29.6	25.3	27.4	27.2	21.9	27.4	21.2
25-29	36.2	40.4	38.3	41.7	45	38.3	42.7
30-39	34.2	34.3	34.3	31.1	33.1	34.3	36.1
Mean number of children	1.75	1.74	1.7	1.7	1.8	1.7	1.7
Number of children, %							
1	39.7	44.3	42	42.8	33.8	42	40
2	46.6	40.6	43.6	45.1	52.3	43.6	48.3
3 and more	13.7	12.6	14.4	12.1	13.9	14.4	11.7
Married, %	91.2	89.5	90.3	85.8	92.3	90.3	88
Educational level, %							
None or Elementary	9.6	8.5	9	10.3	10.9	9	6.7
High school, no graduation	39.5	44.6	42.1	43.5	41.4	42.1	42.7
High school graduated	41.2	38.5	40.2	39.4	37.4	40.2	42.5
Superior	9	8.4	8.7	6.8	10.2	8.7	8
Dependent variable							
Economic activity, %							
ML or PL	30.4	52	41.4	50.8	49	41.4	4.2
Study	0.8	0.3	0.5	1	0.3	0.5	1
Work	39.2	17.2	28	15.6	33.1	28	69.8
Unemployed	10.1	2.4	6.2	1.1	9.6	6.2	9.8
Homemaker	19.2	27.5	23.4	31	6	23.4	14.6
N	365	379	744	720	302	744	623

Source: LFS, own calculations.