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## The Effect of Non-Parental Childcare on Parental Employment, Care Time and Quality: Time Diary Evidence from Korea, the UK, and Denmark

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# The Effect of Non-Parental Childcare on Parental Employment, Care Time and Quality: Time Diary Evidence from Korea, the UK, and Denmark\*

## Abstract

We compare the effects of non-parental care (NPC) for young children on mothers' and fathers' employment and childcare time, using data from Korea, the United Kingdom, and Denmark. Our findings indicate that mothers using NPC are more likely to be employed, particularly in Korea. Correspondingly, in all three countries mothers using NPC spend less time on childcare on weekdays, but in Korea less time is also spent on weekends and on quality care. The effects for fathers are rarely significant. We find evidence that family-friendly workplaces, care type, and gender norms all play a role in explaining the cross-country differences.

## JEL classification

J13, J22

## Keywords

non-parental care, employment, parental care time, parenting quality, survey data, time-use, time-diary data

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## 1. Introduction

As mothers have entered the labour market over the last half century, families have had to adapt to ensure their young children receive care and instruction. Fathers may fill the void or mothers may try to compensate when not working, but the use of non-parental childcare is now quite pervasive, is even used by parents who are not employed, and may at the margin lead others to enter the labour market. Data indicate that on average 36% of children age 0 to 2 and 87% of children age 3 to 5 in the OECD were enrolled in early childhood education and care services around 2020. These numbers do not include the fraction receiving care from other family members. In this paper we exploit time-diary data to examine how the use of non-parental childcare impacts parental time use. In particular, we employ data from a set of countries (South Korea, the United Kingdom, and Denmark) with different policies and social norms in order to determine if the impact of non-parental childcare (NPC) varies with institutional context.

There is a wide existing literature on the effect of NPC on parental outcomes, e.g. modelled theoretically (Cardia and Gomme, 2018) or inferred causally via historical day care expansion reforms (Haves and Mogstad, 2011, Herbst, 2017), geographical variation in foreign domestic helpers (Cortés and Pan, 2013)), or changes in grandparent work time (Bratti et al., 2018). Most studies in this area find strong effects on maternal labour supply of the provision of NPC. Especially, the benefits associated with easy-to-access and high-quality childcare are generally recognized (Glass et al., 2016, Olivetti and Petrongolo, 2017 and Andresen and Nix, 2022). State support of NPC is predicated on the belief that mothers using non-parental childcare have greater flexibility to maintain connections with the labour market, minimize losses in job experience, and so maintain earnings. The effect of NPC on fathers' labour supply has received less attention.

There is also substantial evidence to date that high quality childcare has significant positive associations with child outcomes particularly for less advantaged populations (see, for example, Datta Gupta and Jessen, 2023; Yamaguchi, Asai and Kambayashi, 2018; Heckman et al., 2010; Garces, Thomas, and Currie, 2002). This effect could arise because of differences in time use, as mothers in low-income households who have access to affordable, high-quality childcare increase their employment, thus increasing household income and perhaps reducing stress levels. However, parental time spent with children likely also decreases with the use of non-parental childcare (NPC). At the same time, evidence from Head Start shows that NPC in some cases can bring about positive changes in parental behavior (Ansari et al., 2016). So far, there are only a few studies

trying to examine the association between NPC and the quantity and quality of parental time spent with children (one is Jessen et al., 2021, for Germany). However, that paper focuses on a single country context – Germany – which may have unique institutions or parental preferences that limit the generalizability of its findings to other Western settings, let alone non-Western ones. Our paper expands on this literature by providing evidence from three distinct contexts (Korea, UK, Denmark) spanning both Western and non-Western institutional environments and parenting norms. This broader comparative approach allows us to examine how the use of NPC shapes parental investments in their children across diverse cultural and institutional settings. The three countries in our sample span a wide range of gender norms, female labour force participation rates, parental leave schemes and childcare cost structures, enabling us to identify variation in childcare impacts across institutional contexts.

Parenting style plays a crucial role in children’s development and achievement, independent of socioeconomic factors, and parenting choices tend to vary systematically across countries, cultures and institutions (Doepke and Zilibotti, 2024). Our goal is to examine the relation between the use of NPC and parental time use – both in the labour market and with children – across a diverse set of countries. To this end, data regarding employment, hours worked, total childcare time, and ‘quality’ childcare time are gathered from time diary and survey data. Time use data give rich information on how parents structure their day, the time periods they are present with their children, and the types of activities in which they are engaged. Previous literature finds that unlike parental financial investments, the time parents spend with their children is less affected by background and class (Schneider et al., 2018). Furthermore, cultural norms of child-centered, time-intensive mothering and fathering are now pervasive and are supported highly similarly across social classes (Ishizuka, 2019).

Quality childcare time is defined in our study as time spent teaching, reading, talking, or playing with the child. The concept of ‘quality time’, i.e., that the type of parental interactions with their children, such as engaging in enriching and stimulating interactions, matter more for child social and cognitive development than the actual duration of time spent with them, was a notion introduced by developmental psychologists in the 1970s (Clarke-Stewart, 1978). Testing the concept empirically, a study combining time-diary data with survey data from the PSID finds that engaged (as opposed to accessible) maternal and parental time seem to matter most in adolescence (Milkie et al., 2015). Critics of the quality time concept argue, on the other hand, that quality time

is a rationalization for the time-bind modern-day individuals find themselves in, where the workplace is the stress-free, sociable, and flexible environment while the home has become the opposite (Hochschild, 1997). Furthermore, mothers themselves tend to believe that they are primarily responsible for their children's future behavior and development and that engaging in "intensive mothering" therefore is crucial for a child's brain development (Wall, 2010). Parents may then compensate for the use of NPC on work days by spending more quality time with children on non-work days.

In one of the first studies to use time-diary data to explore the relation between use of center-based care and parenting activities, Jessen et al. (2021) using German data find that parents using center-based care do not necessarily reduce quality time activities such as reading, talking, and playing with the child. This effect seems to be driven by less-educated mothers, suggesting a strong complementary role of investments in children's development by childcare institutions for this group in particular. However, the question remains whether the invariance of parents' quality time to the usage of NPC is universal, or whether it depends on the institutional setting. That is, is it the type of childcare, family-friendly workplace policies that ensure a good balance between work life and family life, or some other factor in the German setting that contributes to this finding?<sup>1</sup>

More recently, it has been suggested that gender norms are the key to understanding why child penalties persist across time and space. Kleven et al. (2019) conclude that culture and norms in fact explain a greater share of the child penalty than government policies. Giuliano (2020) and Cortès and Pan (2023) also highlight the role of gender norms and preferences rather than comparative advantage in driving the belief that women should be the main providers of childcare and housework. The strength of this norm differs across countries.

In this paper we thus employ survey and time-diary data from three settings – Korea, the United Kingdom (UK), and Denmark - to compare the effects of NPC on mothers' and fathers' employment and childcare time. These countries constitute a diverse sample in terms of gender norms, women's labour force participation, parental leave policies, and childcare costs. The fraction of respondents agreeing with the statement, "When a mother works for pay, the children suffer" ranges from 9% in Denmark to 21% in the UK and 65% in Korea (ISSP Research Group,

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<sup>1</sup> However, it should be noted that even within Germany there are regional differences. For example, Jessen (2022) finds heterogeneity in the wage effects of children by maternal region of birth.

2016). This highlights substantial cross-country variation in gender norms – particularly between Korea, on the one hand, and the UK and Denmark, on the other. While 73% of women are employed in Denmark and 72% in the UK, in Korea the fraction is only 58%. However, when at work, working long hours is very common in Korea (even after a 52-hour limit has been imposed) constraining scheduling flexibility for parents (OECD, 2020).<sup>2</sup> Furthermore, women’s influence in the workplace is also limited in Korea. Per The Economist’s Glass Ceiling Index (<https://www.economist.com/graphic-detail/glass-ceiling-index>), a measure of women’s role in the labour market, in 2016 Denmark ranked 7, the UK 22, and Korea 29 (of 29).

Parental leave policies are complex and difficult to summarize, but Denmark offers a somewhat longer paid leave than the UK. Korea offers less than half as long a paid leave as is available in Denmark. The OECD reports net childcare costs for low-income households. Korea scores a 5, Denmark an 11, and the UK a 25, where higher numbers reflect higher costs. That costs in Korea are so low likely helps explain why take-up of NPC for 3-5 year olds is about as high as in Denmark and the UK. However, large differences exist in the type of care provided. While children in Denmark and the UK are predominantly placed in formal care, 62% of employed Korean mothers with infants used kin-based childcare.<sup>3</sup> Finding comparable results across this set of countries would therefore be surprising.

We show that mothers having NPC for children less than age ten are significantly more likely to work: by 42-43 percentage points (pp) in Korea, 21-23 pp in the UK, and between 3 and 21 pp in Denmark. These substantial cross-country differences are indicative of the cross-country differences in women’s labour force participation and social norms. The probability fathers having NPC work is also higher, suggesting that fathers may sometimes substitute for mothers, but the effects are much smaller and not always significant. On the intensive margin, use of NPC has a significant positive effect on hours worked only for mothers in Korea.

Next, we leverage time-diary data on time spent with children to examine both total time spent on childcare as well as quality time, distinguishing between weekdays and weekends. We find that mothers using NPC spend significantly less time on childcare in all three countries on weekdays and in Korea and marginally so in Denmark also on weekends. However, while there is

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<sup>2</sup> [The 2018-2021 working time reform in Korea: A preliminary assessment | OECD](#)

<sup>3</sup> Ministry of Gender Equality & Korean Institute of Health and Social Affairs, 2005.

no significant difference in mothers' quality time (time spent reading, teaching, playing with the child) in Denmark and not much in the UK either (where such time actually may increase on weekends), in Korea quality time is lower during the week and either the same or slightly lower on the weekend for mothers using NPC. Unlike many other studies in the area, we are also able to document how the quality of father-child interactions vary with use of NPC (following best practices in the study of child development as recommended by in Cabrera et al., 2018). Fathers' childcare time, total or quality time, is generally unrelated to the use of NPC in all three countries. Where effects are significant, we test for coefficient stability to potential omitted variable bias (by way of the Oster method). These results confirm that in all settings mothers using NPC have higher labour supply and lower total childcare time and in some but not all settings, also lower quality time, and that these effects are for the most part bias-free. Some further analyses explore the mechanisms discussed earlier in this section that could underlie these cross-country differences, in particular work time scheduling differences, differences in care type, and differences in gender norms.

The rest of the paper is organized as follows: Section 2 describes in more detail the rationale behind the countries selected for this analysis as well as the data used in each setting, Section 3 discusses methodological issues, Section 4 presents descriptive statistics, Section 5 discusses the estimation results, Section 6 searches for some mechanisms to explain the findings, and Section 7 concludes.

## **2. Data**

Data from Korea, the UK, and Denmark are employed in this analysis. All samples are restricted to heterosexual couple households living together with at least one child less than age ten and no unrelated persons. We focus on children under the age of, as the presence of children in this age group constitutes the primary constraint on mothers' labour force participation. Couples must provide at least one complete weekday time diary (provided in ten minute increments) and cannot be on parental leave.<sup>4</sup>

The time diary data for Korea come from the Korean time use survey of 2019, which are publicly available from the microdata integrated service of Statistics Korea. These data include

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<sup>4</sup> Information on parental leave is not available in the Korean survey, but fewer than 1% of men and fewer the 2% of women report being on leave of any kind, including vacations.

1,315 married couples. No couples are dropped for missing information or poor diaries because the data were cleaned before being released to the public. In the Korean time use survey, the respondents are asked to report what they did during the previous two days. Those two days may both be weekdays. The regressions are weighted to correct for heteroskedasticity arising when individuals enter the sample multiple times. Responses regarding how children were cared for in the prior week are used to identify NPC. Such care could be provided by grandparents, daycare centers or kindergartens, after school activities, or private academies. It is important to note that in the case of the Korean data, this question about NPC addresses only afternoon care for children under the age of ten, not care in general. The childcare time measures for Korea also focus only on children under age ten.

The time diary data for the UK come from the United Kingdom Time Use Survey of 2015 (Sullivan and Gershuny, 2021). A questionnaire was completed for each household member documenting age, education, and, in the case of children, the type of care received the prior week. Each parent was also asked to complete a weekday and a weekend time diary. Diaries were considered ‘good’ if they were missing no more than 60 minutes of data, included at least five different activity periods, and did not entail more than 14 hours of time in bed or sick. Of the 744 couples with a child under age ten, 11 fail to report how a child is cared for, 16 fail to report each partner’s age and education, 51 are excluded for having a partner on parental leave, and 91 fail to provide at least one ‘good’ weekday diary. These restrictions leave a sample of 575 couples. Households that use some NPC during the week for every child under age ten in the household are coded as using NPC. NPC includes care from nannies or neighbors, public care centers, and private creches. All results are weighted.<sup>5</sup>

The Danish time diary data come from the Danish Time Use Survey of 2008, which is based on a randomly drawn sample of the Danish adult population<sup>6</sup>. Individuals in this sample answer a background questionnaire about the other individuals residing in the household, including their main occupation, school status, and if they are in formal childcare or in-home care. All adults in the household with the main respondent were also invited to provide a time diary for one

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<sup>5</sup> Childcare time measures are not restricted to children under the age of 10, but two-thirds of the households only have children less than age 10.

<sup>6</sup> A more recent Danish time use survey from 2018 is available but does not include sufficiently many observations with complete data on parents with children under age ten. For instance, only 150-200 couples in 2018 meet the same sample selection restrictions applied in 2008 and yielding 748 couples. However, we have run the basic regressions on these data and find similar results (available on request).

weekday and one weekend day of the same week. Respondents who do not answer a weekday diary or answer it on a public holiday are dropped. We also drop respondents with missing information about age and education, those with less than five distinct activity spells over the day, and those reporting a largely inactive day. This leaves us with a sample of 748 couples.

In all analyses, we supplement the employment status and hours of work taken from the time diaries with their survey-based counterparts. Time diary reporting of hours worked may be more accurate and less affected by social desirability concerns than survey responses. On the other hand, time diary reports may suffer from non-representativeness if the diary day is a non-standard one. We restrict the diary report of hours worked to a weekday – but as a consequence miss employment on weekends. Furthermore, time-use information from a single 24-hour period in an individual’s life is probably not useful for inferring their long-run time use (Frazis and Stewart, 2012). A pragmatic approach, therefore, is to compare results using both measures. In general, the results using survey and time diary data are encouragingly similar.

The key childcare time measures used in this analysis are total childcare time (excluding time transporting children) and quality childcare time, which is defined as time spent teaching, reading, talking or playing with the child. These measures exclude time spent in the presence of but not actively engaging with a child. Total childcare time thus includes time spent feeding a child, other physical care of the child (for example: changing diapers, caring for wounds, waking up/putting to bed, watching at a playground), and unspecified childcare (for example: helping the child, starting a video, etc.).

### **3. Methods**

In theory, greater access to childcare or a reduction in childcare costs should increase maternal labour supply by reducing the net costs of working, i.e., shifting the maternal labour supply curve outwards. Of course the decision to place a child in formal or informal care is itself a household choice, influenced by both observed and unobserved characteristics of the mother and her spouse. Below, we will describe methods we use to try to control for this source of endogeneity. First, we condition on a number of observables. We estimate simple OLS models of the effect of NPC use on employment (employment status and hours worked conditional on employment, using both survey and time-use measures) and childcare time and quality (on weekdays and weekends). Controls include each partner’s education and age, the number of children aged 10-18, the number

of children of preschool age, the number of other children less than age ten and dummy variables identifying households with persons 65 years or older, with only school aged children, residing in an urban area (or best available), and (UK and Denmark only) cohabiting as opposed to married couples. Couple-specific sample statistics are reported in Appendix Table A.

Next, we follow the method pioneered by Altonji, Elder and Taber (2005), henceforth AET, and further developed by Oster (2019) to gauge the importance of selection or omitted variable bias (OVB) in driving that choice. The AET method assumes that the selection on unobservables is proportional to the selection on observables, and, furthermore, that testing the stability of the coefficient of interest to the inclusion of observed controls is a useful way to assess the extent of OVB. Oster (2019) extended the AET methodology by scaling the coefficient movements by the change in  $R^2$  when adding controls, proposing a new consistent estimator for OVB that also takes into account the proportion of the treatment variance that is explained by the included controls. The method is simple to use, requiring only the input of one parameter:  $R_{max}$ , the  $R^2$  from the hypothetical regression of the treatment (NPC) on all controls, both observed and unobserved. After reviewing a set of randomized studies from top journals, Oster suggests setting  $R_{max} = 1.3\tilde{R}$ , where  $\tilde{R}$  is the R-squared from the main regression in the analysis including all the observed controls.

Implementing this procedure, we estimate specifications both including and excluding the rich set of covariates identified above. If the addition of controls does not substantially change the magnitude of the coefficient to the dummy variable indicating the use of NPC, that is evidence that OVB is likely small. Using the `pascal` command in Stata, we obtain a measure of the relative importance the unobservables must have as compared to the observables to cause the estimated effect to be zero, designated Delta, when  $R_{max} = 1.3\tilde{R}$ . The interpretation given to Delta is how large unobservables would have to be relative to observables in order for the estimated treatment effect to be plausibly zero. Values of Delta greater than one in absolute value are generally taken to indicate that the treatment effect is plausible and likely to have limited bias.

#### **4. Descriptive statistics**

Table 1 shows summary statistics for employment status and hours worked and Table 2 shows summary statistics for childcare time. In both cases the means are shown by use of NPC and separately by country and by parent. The fraction of households using NPC ranges from 85% in

Denmark to 50% in Korea and 37% in the UK. For each set of numbers, we test whether the means are significantly different by use of NPC and report the associated p-value.<sup>7</sup>

Table 1 shows that while mothers in all three settings are at least somewhat significantly more likely to be employed when using NPC than when not using such care, the use of NPC makes a difference for fathers only in the UK. The most notable difference in hours of work, conditional on working, is for mothers in Korea who report spending between 5 and 7 additional hours per week on the job if they have NPC

Turning to parents' childcare time in Table 2, a universal (and not surprising) finding is that mothers report spending more total time on childcare than do fathers, both on weekdays and on weekends. This difference is smaller on weekends when fathers in all three countries report more childcare time. Danish fathers spend more time on childcare and Korean fathers less, with UK fathers generally in the middle. When testing for significant differences by use of NPC (Table 2), what is surprising is that parents in Korea and Denmark who do not use NPC also spend significantly more time on total childcare on weekends than do parents who use NPC. In the UK, both mothers and fathers who use NPC spend more time with their children on weekends than mothers and fathers not using NPC.

Results for parental quality childcare time are roughly similar. Mothers spend more quality time on weekdays with their children than do fathers. However, fathers contribute more quality care time-use on weekends so the gap between mothers and fathers shrinks on the weekends and even reverses in the UK. Country differences in quality time are much less pronounced than country differences in overall childcare time, especially for fathers on weekends. Testing for differences by use of NPC, we find that mothers in Korea and Denmark using NPC spend less quality time with their children on both weekdays and weekends. In the UK the pattern is different, with mothers using NPC spending the same amount of (significantly more) quality time with their children on weekdays (weekends) as mothers not using NPC. Fathers in the UK who use NPC average more quality time on both weekdays and weekends, while fathers in Korea and Denmark spend the same or less quality time with their children.

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<sup>7</sup> The survey based measures of employment are substantially different from the diary based measures (15 to 20 percentage points higher) for the UK and Denmark, but not Korea. The diary-based measures are calculated using only weekday reports, and so miss weekend work and vacation days. This omission accounts for most of the UK differential. In Denmark, 75% of the difference is due to individuals reporting a sick day. That an unusual fraction of weekday diaries were completed on a Friday in Denmark may have contributed to this result. Long work weeks and limited vacation time likely explain the matching Korean figures.

However, these are the (unadjusted) mean differences only and do not control for covarying observed factors or take into account the role of unobservables. We turn next to the estimation results.

## **5. Estimation results**

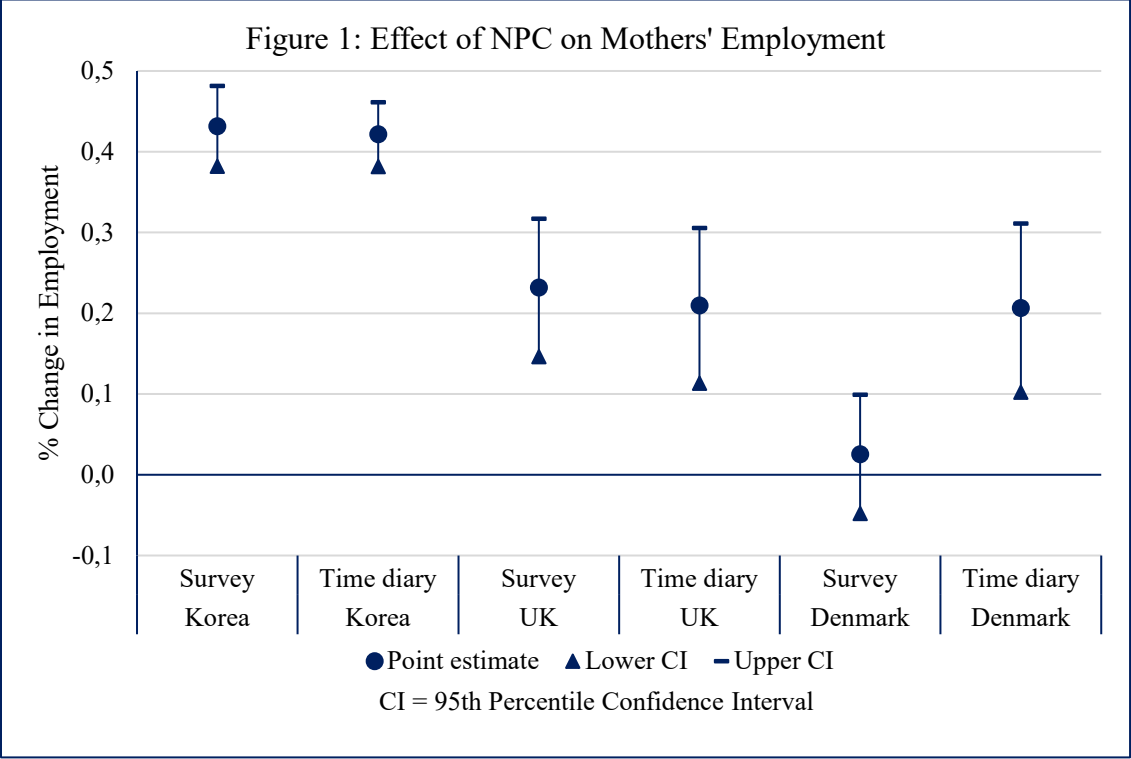
In this section, we report estimates of the association between the use of NPC on employment and childcare time using simple OLS methods to control for a range of covariates. As the decision to use NPC for household members under the age of ten is likely codetermined with employment and time use outcomes, we employ the Oster method as described in Section 3 to assess how biased our results are likely to be. In sum, we report for each specification not only the coefficient and standard error to NPC in both unconditional and conditional models, but also the mean value of the dependent variable and the goodness-of-fit of these models. The Delta value that describes how large the ratio of unobservables to observables would have to be in order for the estimated effect of NPC to be plausibly zero, is reported, too, in those cases where the coefficient is found to be statistically significant at the 5% level. For the results to be of interest, Delta should be large in magnitude. AET suggest Delta should be larger than 1, implying that the observables are at least as important as the unobservables. Table 3 presents results for employment and Table 4 for childcare time.

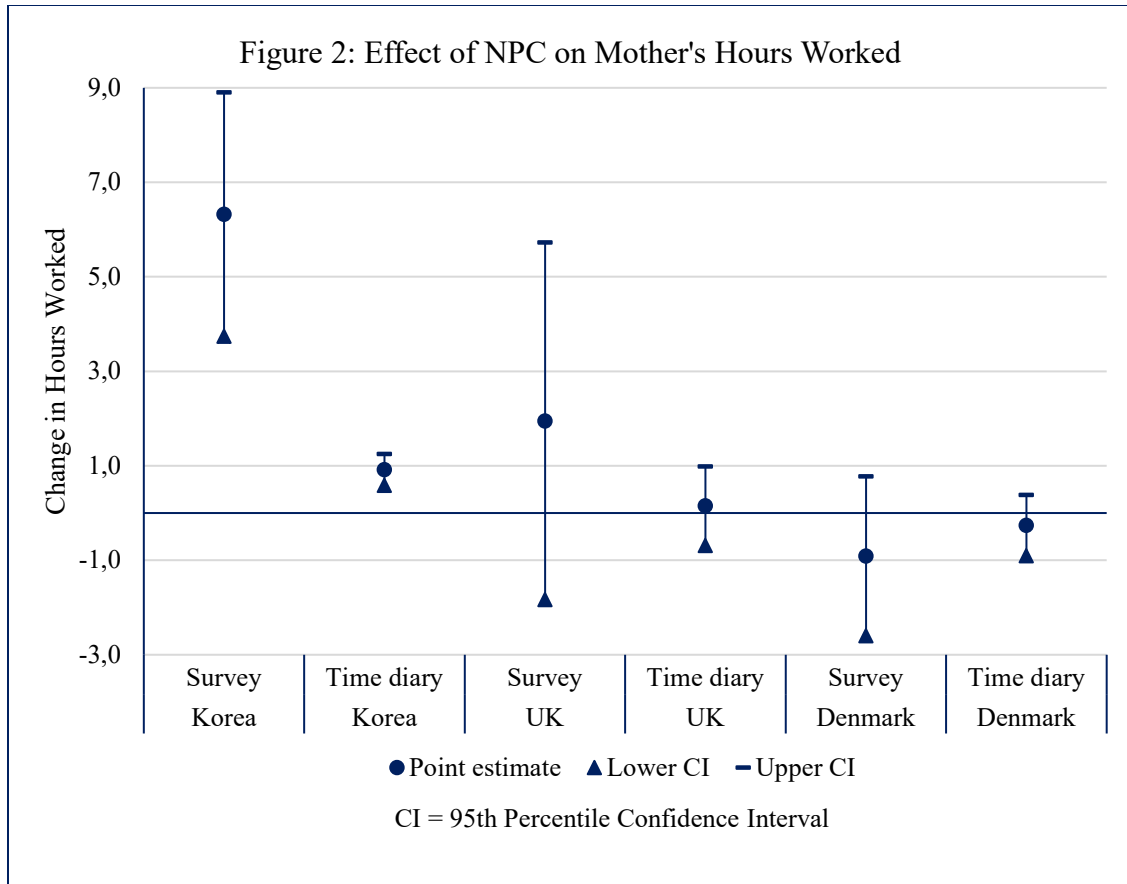
Employment results for mothers, illustrated graphically in Figure 1, reveal that using NPC increases mothers' probability of employment in all three countries, highly statistically significantly so in all but one case. In almost all cases the unconditional estimates resemble the conditional estimates. Thus, in the case of mothers' employment, the Delta values all exceed one, ranging from 1.6 to 9.1, when the coefficient to NPC is statistically significant. This result indicates that the unobservables would have to have at least 1.6–9.1 times as great an impact as the observables for the estimated effect of NPC to be plausibly zero, lending substantial support to the finding. In addition, a striking feature is that the estimated effects on the likelihood of employment are fairly similar (when significant) whether measured by the survey variable or by the time-diary based variable.

The magnitude of the effect differs substantially across countries. Korean mothers experience the biggest differential in employment probability – according to conditional estimates they are 42-43 percentage points more likely to be employed if they use NPC. Using NPC has only

half that effect in the UK (21 to 23 percentage points). Results for mothers in Denmark show no significant effect using survey data, but the time diary estimates suggest mothers using NPC are 21 percentage points more likely to be employed. As compared to sample averages, Korean mothers are 88% (100%), UK mothers are 35% (33%), and Danish mothers are 3% (31%) more likely to be employed per the survey (per the time diary) if they use NPC. These results are driven in part by cross-country differences in female labour force participation which is very high in Denmark (so there is little room for NPC to have an effect) and low in Korea.

Conditional on being employed, NPC significantly increases mothers' hours worked only in Korea (results illustrated graphically in Figure 2). There, use of NPC increases hours worked by a little more than 6 hours per week (using survey data) and almost 1 hour per day (using diary data). These correspond to an increase of 17% of the mean per the survey and 15% of the mean per the time diary. These results, too, pass the Oster test with Delta values of 12 and 14 respectively.



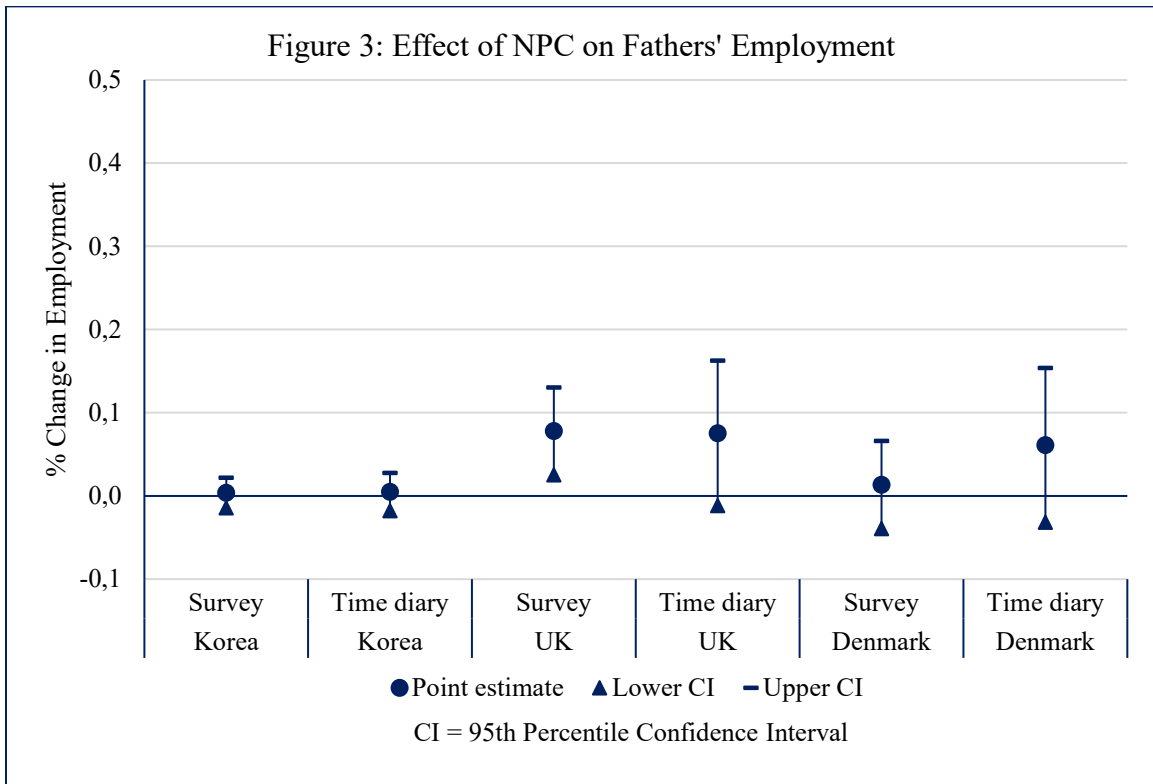


Corresponding results for fathers in Table 3 and Figures 3 and 4 show that Korean and Danish fathers are largely unaffected by the use of NPC. Danish fathers are found to work about 0.7 hours a week more when they use NPC, but only according to the time diary. However, fathers in the UK are around 7 percentage points more likely to be employed when they have NPC for their children, and, based on the survey responses, likely to work 2.7 hours more per week, though the latter effect is insignificant. In both cases indicating a significant effect, the magnitude of that effect increases when including controls, suggesting that the bias is away from rather than towards zero, and Delta values are greater than ten.

Overall, in the case of employment effects, endogeneity bias does not appear to be a concern, as tested by way of coefficient stability.

An examination of the full set of parameter estimates (see Appendix B) yields few results of interest when focusing on those specifications in which non-parental care has a significant coefficient. The additional covariates add very little explanatory power to the probability of maternal employment in Korea, as evidenced by the fact the R-squared measures increase only

from 0.20 to 0.21. Korean mothers' hours worked, however, are strongly negatively associated with the number of preschool aged children and strongly positively associated with the presence of a person age 65 or older. In the UK, mothers' education is strongly positively associated with her employment, while in Denmark it is fathers' education that is strongly negatively related to mothers' employment. Having more and younger children is negatively associated with employment for both mothers and fathers in the UK, but not Denmark. Finally, younger married men work longer hours in Denmark.



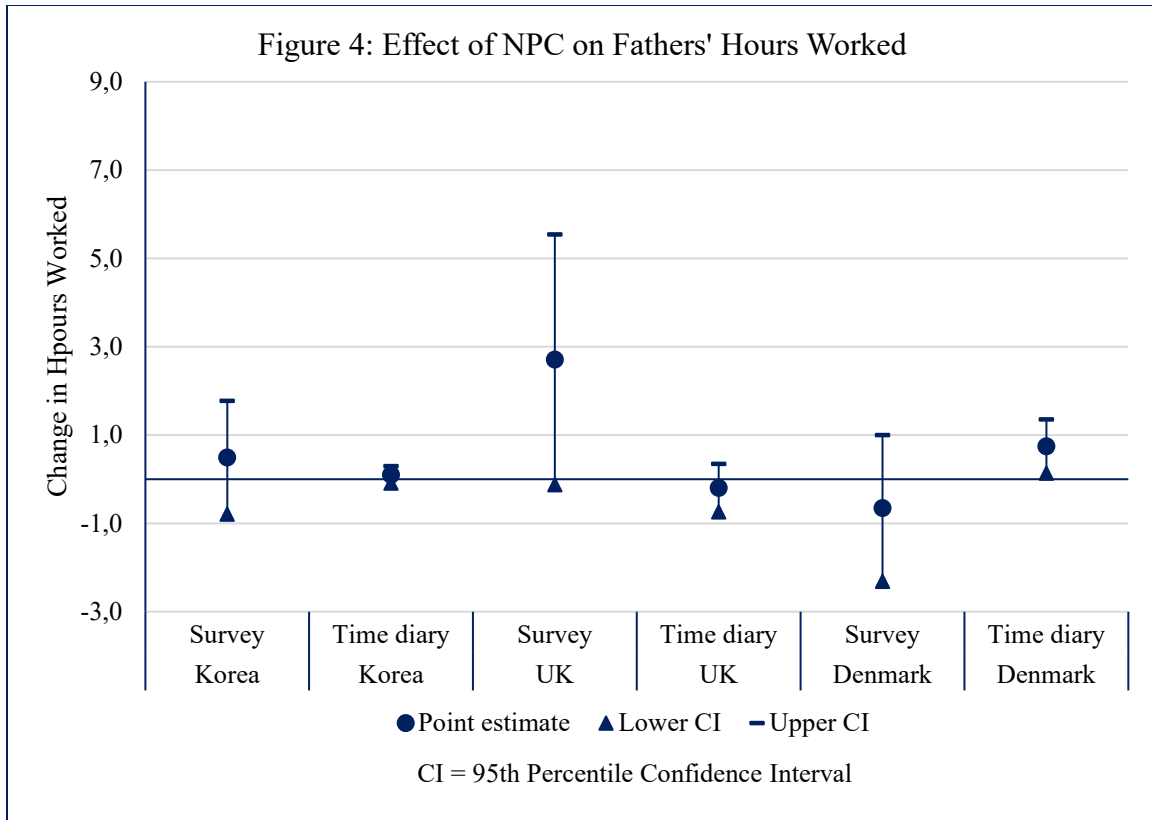
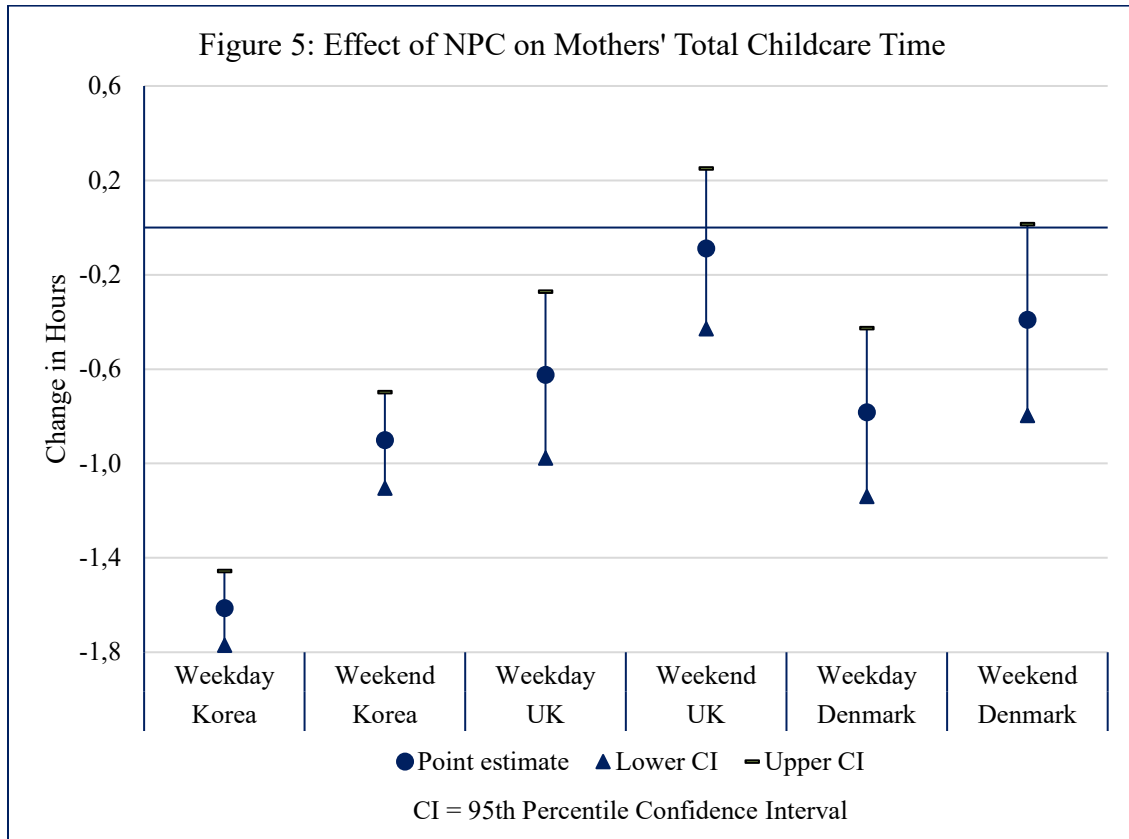
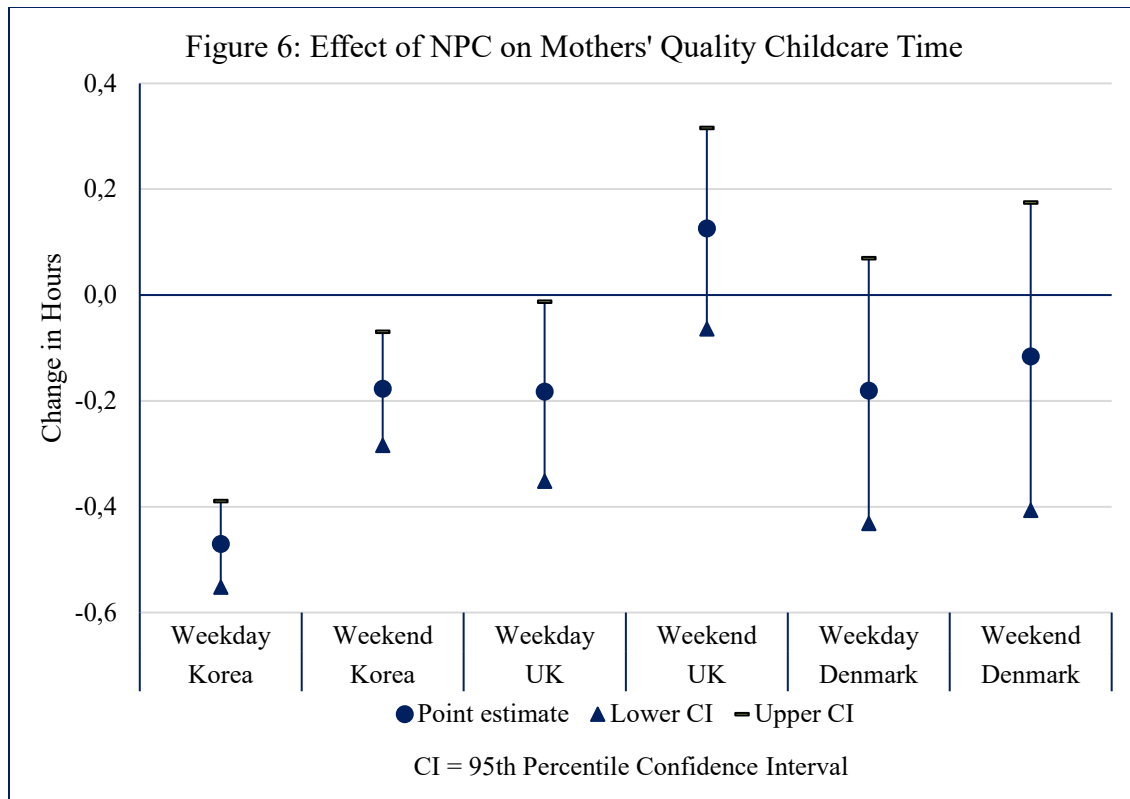


Table 4 presents the estimated effects of NPC on total parental childcare time and quality parental childcare time for weekdays and weekends. Figures 5 and 6 illustrate these effects for mothers. Focusing again on the results with controls, mothers in all three countries report significantly less total childcare time on weekdays when they use NPC, with the differential varying from approximately 0.6 hours in the UK and 0.8 hours in Denmark, up to 1.6 hours in Korea, corresponding to 28%, 45%, and 55% of the mean values respectively. This is not an unexpected finding. However, what is surprising is that even on weekends, mothers in Korea and Denmark who use NPC provide about 0.9 hours (38% of the mean) and 0.4 hours (24% of the mean) less childcare per day, respectively, compared to mothers who do not use NPC even after controlling for covariates, and these differences are significant (marginally so in Denmark). When significant, the Delta values also exceed 2, providing further support for these results.

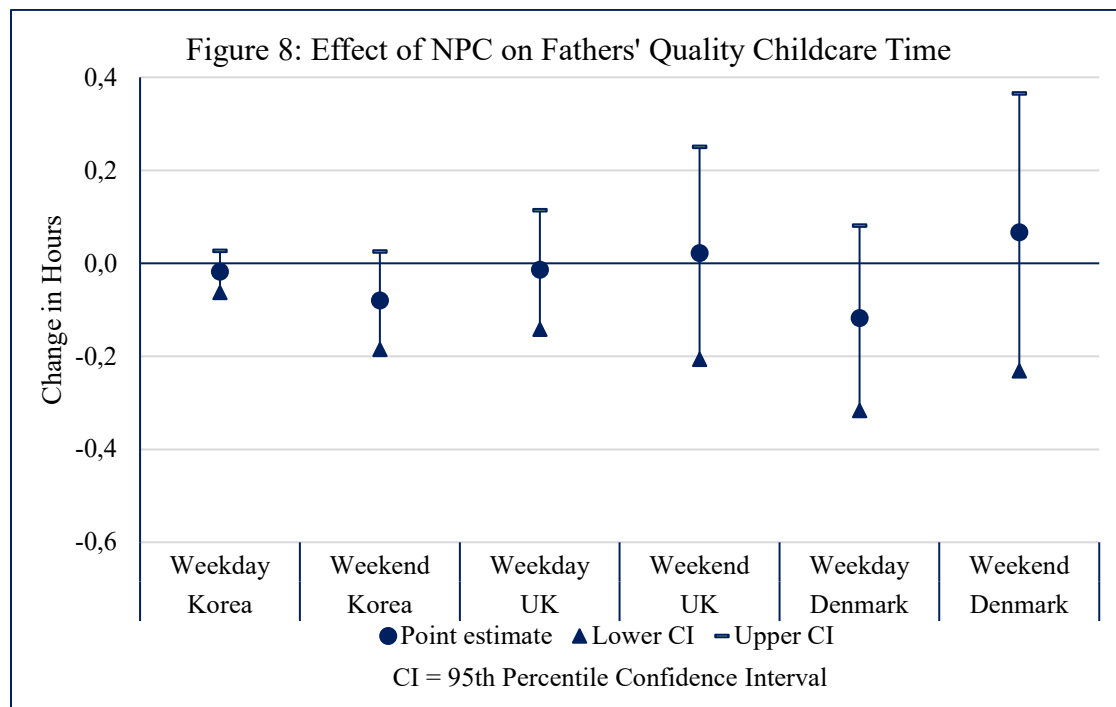
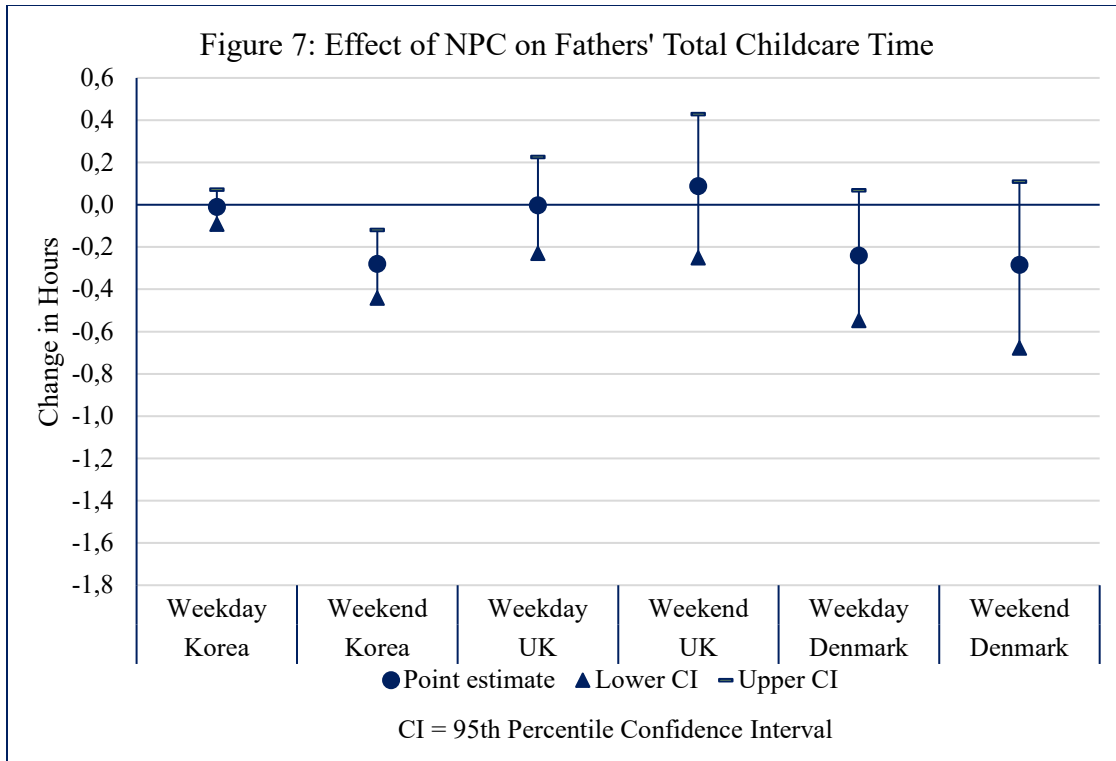
When it comes to quality time, the differences between mothers who are and are not users of NPC are smaller and not statistically significant in Denmark or on weekends in the UK. On weekdays in the UK the effect is statistically significant but small (-0.18, 28% of the mean). However, Korean mothers using NPC spend substantially and significantly less quality time on both weekdays (-0.47 hours, 52% of the mean) and weekends (-0.18 hours, 25% of the mean). The

Delta values range from 1 to 5 for those coefficients that remain significant, indicating that the impact of unobservables would have to be as large or many times larger than the impact of the observables for the estimated effect to be zero.





The results for men, visually depicted in Figures 7 and 8, indicate that only men in Korea using NPC report spending significantly less time on childcare and then only on weekends. The Delta value for this estimate (3) provides support for the robustness of the result. In general, however, fathers' reported time on childcare does not seem to vary much with the use of NPC.



Looking at the full set of parameter estimates particularly for those specifications in which NPC is significant (see Appendix B), we find, not surprisingly, that mothers' total childcare time rises significantly in all countries with the number of preschool aged children. Korean fathers'

total childcare time also rises with the number of preschool aged children. In Denmark, mothers' quality time is positively related to their education and negatively related to their marital status. Little else is statistically significant in Denmark or the UK. In Korea, however, age, education, and household composition all play a role.

We conducted some robustness checks on the childcare results. First, we included month-of-survey dummies to check for seasonality as school attendance could be important. This was possible with the Danish and UK data, but not the Korean data which do not include the interview date. In no case were these dummies jointly significant at the 5% level. Second, we split the maternal sample by education level as did Jessen et al. (2021) and examined mothers' quality childcare time. Table 5 shows these results. Here we find that the behavior of UK and Korean mothers is invariant to the level of education, though the point estimates for the UK indicate that both more and less educated mothers using NPC reported more quality childcare time on the weekend. Interestingly, while overall Danish mothers were not observed reporting significant differences in quality childcare time by NPC use, less-educated mothers in Denmark using NPC do report significantly less quality time on weekdays (but not on weekends). This result differs from Jessen et al. (2021) who found that less educated mothers in Germany tended to spend more time on stimulating parenting activities during non-center hours.

In the following, we seek to explain the finding that on weekdays Korean mothers who use NPC report less quality childcare time, while Danish and UK mothers using NPC either report a smaller difference or none at all. Understanding what drives cross-country differences is important if policy makers wish to influence outcomes.

## **6. Mechanisms**

We consider three mechanisms that could drive these differences. First, family-friendly policies that enable a shorter working day and more flexibility may explain why mothers in some settings and not others can provide more quality time on weekdays, i.e. by being able to provide a more "activity-rich" afternoon or evening (Jessen et al., 2021). Second, we consider the type of childcare used. Parents may be differentially incentivized to provide stimulating childcare as compensation for the child being away from home during the day, depending upon whether the NPC is formal center-based care versus informal care provided by close family members or informal care provided by neighbors and nannies. Finally, we explore whether gender norms can

explain mothers' differential behavior. If fathers are more involved in the household, then they may reduce the burden of childcare on mothers. Of course, these mechanisms themselves could reflect individual choices. Our approach is to treat them as being determined by the employer side or by the prevailing institutional features and norms of the society, and only to a lesser extent by individual choice.

To shed light on the first mechanism we begin by examining hourly time-use on both weekdays and weekends by mothers and fathers in Korea, the UK, and Denmark. This time use is illustrated in Appendix Figures 1-3. Comparing the hourly time use of mothers on weekdays in Korea, the UK, and Denmark by use of NPC, it can be seen that mothers using NPC (Figures 1, 2 and 3—panel A) provide less childcare (although differences are small in the UK), do more paid work, sleep less in the mornings, and do less housework (in Korea and the UK). No substantial differences are seen for leisure time in Korea and Denmark, but UK mothers using NPC tend to enjoy less leisure time. It can also be seen that there are differences in quality childcare time provided on weekday afternoons with Korean mothers using NPC providing substantially less quality time in the time interval 2:00-5:00PM, UK mothers using NPC providing less quality time at 4:00PM, while Danish mothers using NPC provide less quality time between 2:00-4:00PM but not after that. (Note: in Korea and Denmark mothers using NPC provide less quality time in the mornings but surprisingly not in the UK.) Hourly time-use figures for fathers who use NPC do not differ on weekdays appreciably from those of fathers who do not use NPC along any of the time-use dimensions considered – total childcare time, quality time, market work, housework, sleep, or leisure. On weekends, however, parents using NPC in Korea and Denmark appear to spend less time on childcare while parents using NPC in the United Kingdom appear to spend more time.

In summary, we see that it is mainly mothers using NPC in Korea who are unable to provide quality care during the time interval 2:00-6:00PM. Interestingly, it seems that mothers using NPC in the UK and Denmark are quite similar to mothers not using NPC when it comes to providing quality care on weekday afternoons. However, this evidence is descriptive only as we do not control for covariates or assess the importance of unobservables.

To understand the reason behind country differences in the ability of mothers in some settings to provide the same quality care whether using NPC or not, we consider various types of family-friendly workplace policies in terms of ease of work time scheduling, specifically: time start and stop work, the amount of time spent on breaks, and the proportion of time (between start

and stop) spent not at work. Table 6 shows that mothers who use NPC in Korea and Denmark start work 75 to 45 minutes earlier than mothers who do not use NPC, and these differences are statistically significant. Regarding work stopping times, it should be noted that Korean mothers stop work on average at 5:00PM, UK mothers at 4:00PM, and Danish mothers at 3:30PM. While there is no significant difference between mothers who use or do not use NPC in this respect in Korea and Denmark, it appears that UK mothers who use NPC stop work an hour later than UK mothers who do not use NPC, and this difference is significant at the 5% level. There are no strong, significant differences in breaks or absences taken, although UK mothers who use NPC are marginally more likely to take breaks during their workday. Fathers who use NPC do not report significantly different job attributes than fathers who do not use NPC in any of these countries.

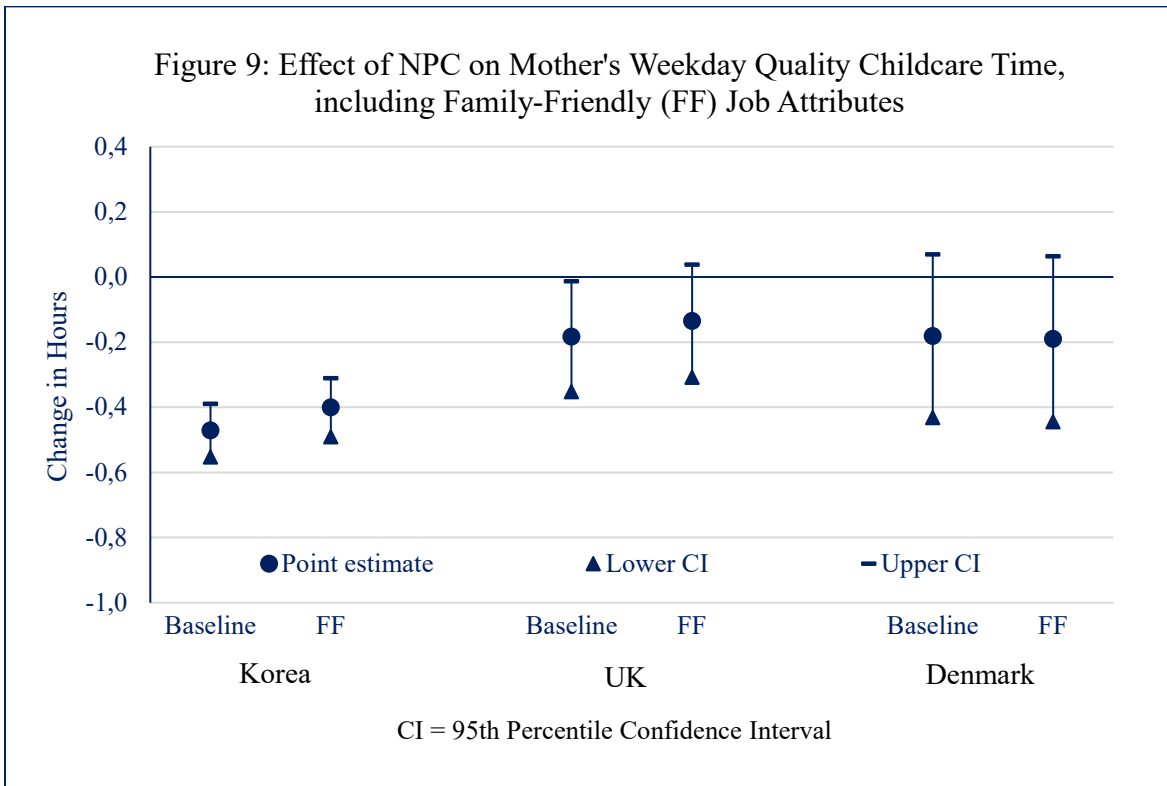
This evidence, although descriptive, indicates that family-friendly policies captured via these measures may play some role in explaining the main finding. Of course, all work attribute measures are only observed for those working. Conditional on working, mothers who use NPC and mothers who do not use NPC may resemble each other more than if we considered the full group of mothers not using NPC (including the labour market non-participants). This selection is more restrictive in Korea and the UK than in Denmark, see Table 1. According to the survey measure, 71% (26%) of mothers who use (do not use) childcare work in Korea, whereas the comparable figures for the UK and Denmark are 81% (59%) and 86% (79%)<sup>8</sup>.

To account for the effect of such family-friendly attributes which are only observed for those working, we assign non-working mothers imputed values for these attributes by sampling multiple times from the distribution of variables for working mothers, using the multiple imputation procedure (MI) in STATA. Once we impute the values, we run the quality time regression again for both working and non-working mothers including work attributes as controls. These results appear in Table 7. As surmised, when significant, family-friendly job attributes typically have the expected signs. Focusing on the quality time regression in column 2 of Table 7, starting work later, stopping work earlier, and having a larger proportion of time on breaks are all positively associated with quality time. Furthermore, it can be seen that the coefficient to NPC in the quality time specification is about 15% smaller in Korea and becomes insignificant for the UK when including these family-friendly job attributes. On the other hand, the coefficient to NPC use

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<sup>8</sup> However, time-diary based employment measures show 63% (19%) of mothers who use (do not use) childcare work in Korea, 59% (38%) in UK, and 66% (44%) in Denmark, see Table 1.

becomes 5% larger in the case of Denmark when controlling for family-friendly job attributes but remains insignificant. This evidence points to less family-friendly working conditions playing a significant role in explaining why Korean mothers who use NPC provide less quality time on weekdays than those not using NPC. These results are graphically depicted in Figure 9, which shows estimates moving closer to zero in Korea and becoming insignificant in the UK when controlling for family-friendly attributes.

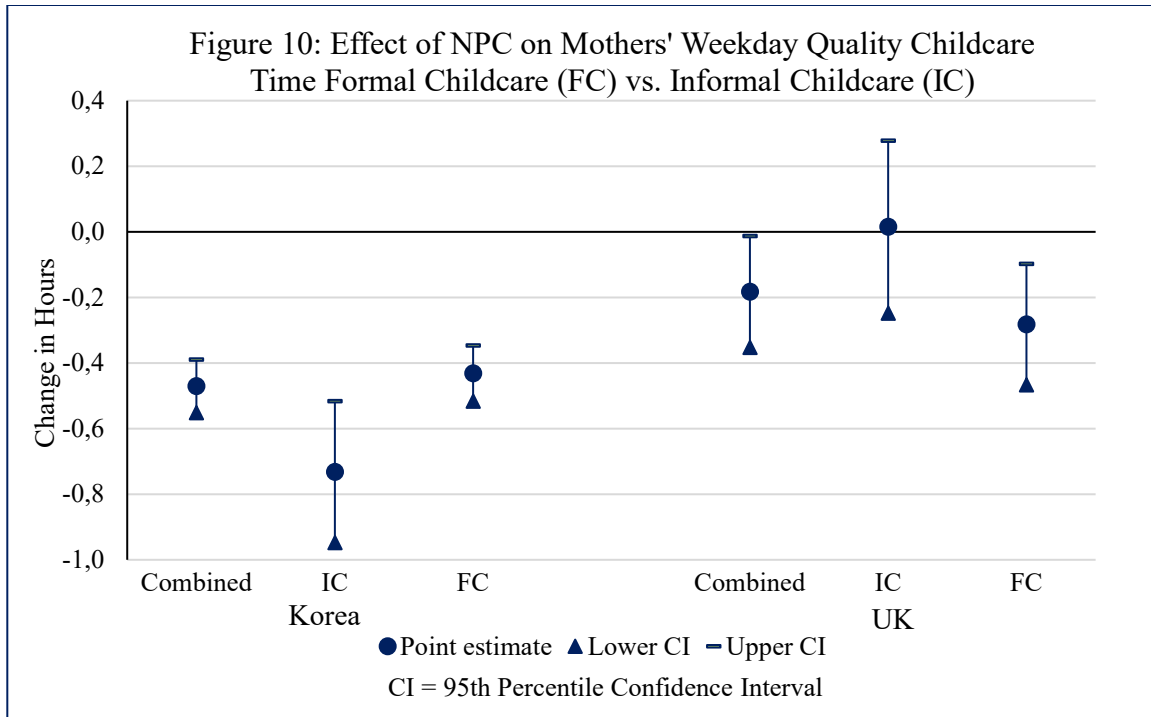


Next, we look at care type differences across the three countries and whether these can explain why in some cases mothers using NPC reduce quality time with their children on weekdays. In Denmark almost all children are enrolled in formal care so no comparison with informal care is possible. In the UK around 90% are enrolled in formal care; in Korea, the use of informal, mainly grandparent-provided, care is more widespread. We are able, in Tables 8 and 9, to show the results obtained for the UK and Korea by rerunning the same models as before (for employment and hours of work and childcare time, respectively) separately by care type. The baseline in each case is households not using NPC.

Table 8 shows the employment and hours of work effects. These effects are larger in Korea for mothers using informal care as compared to mothers using formal care. Thus, having a grandparent at home looking after the child in the afternoon allows mothers greater latitude to work and stay at work longer in Korea. Fathers' employment outcomes in Korea do not differ with NPC use. In contrast, in the UK mothers using any type of NPC are about equally more likely to be employed while only fathers using formal NPC are significantly more likely to be employed – perhaps in part to cover the higher cost of NPC.

Table 9 reveals that in Korea mothers using any type of care spend less total time and less quality time with their children on both weekends and weekdays, but the reductions on weekdays are larger for those using informal care. However, mothers in the UK only spend less total time and quality time on weekdays if using formal childcare; UK mothers using informal care actually spend more time on quality childcare on weekends. Fathers in the UK do not significantly change the time they spend with children no matter the type of day care. Fathers in Korea spend less time on weekends, particularly when day care is informal.

Thus, differences in the type of care also contribute to explaining the cross-country differences observed in mothers' provision of stimulating childcare during weekdays. Figure 10 illustrates these findings. We can see that it is informal care that pulls the effect quite substantially downwards in Korea, whereas in the UK this occurs with formal care only; informal care in the UK shows an insignificant effect on quality childcare time.



Finally, we address the possibility that the cross country differences could be attributable to differences in social norms. Recall that the fraction of respondents to the 2012 ISSP Survey who agree with the statement “When a mother works for pay, the children suffer” ranges from 65% in Korea, to 21% in the UK, to 9% in Denmark. Such divergent gender role attitudes are likely reflected in fathers’ involvement in childcare and housework. Indeed, such is the case. Table 10 reports fathers’ share of total childcare, quality childcare, and housework (defined as food management, cleaning, services, shopping, yard work, home/car repair, and some related transportation) on weekdays and weekends, overall as well as by use of NPC. On both weekdays and weekends, on average fathers in Denmark contribute a greater share of total childcare (41-46%) and housework (43-50%), as compared to fathers in the UK (27-36% and 31-37% respectively), who contribute a greater share as compared to fathers in Korea (17-34% and 13-24%).

Just as the cross-country differences in gender role attitudes are reflected in cross-country measures of fathers’ average household involvement, so cross-household differences in gender role attitudes are likely reflected in cross-household differences in fathers’ involvement. Fathers’ contributions range all the way from 0% to 100%. Couples who support less traditional gender roles may share childcare responsibilities more evenly, with fathers reporting more time and

mothers reporting less time – hence increasing father’s share. Failing to control for gender norms may introduce bias.

Furthermore, couples who use NPC are on average likely to espouse less traditional gender roles. We have already found that mothers using NPC are more likely to be employed in Korea and the UK. The ISSP Survey found that couples in Korea in particular often believe mothers’ employment hurts children. Therefore, it is likely that parents using NPC are less likely to believe they are causing harm. Supporting this supposition, we find fathers’ involvement in childcare and housework on weekdays to be significantly greater in households using NPC than in households not using NPC, at least in Korea and the UK (see Table 10). All fathers already share substantial responsibility in Denmark.

If fathers spend more time and mothers spend less on childcare in households espousing less traditional gender role attitudes and the use of NPC is indicative of less traditional gender role attitudes, failing to control for gender role attitudes will lead the negative impact NPC has upon mothers’ childcare time to be overestimated (as the estimates will incorporate both the impact of NPC and the impact of gender role attitudes), while estimates of the impact NPC has upon fathers’ childcare time will be underestimated. We explore this possibility by including a measure of father’s share of housework time in our analysis of childcare time. More specifically, we control for father’s share of housework on weekdays when analyzing weekday childcare time and father’s share of housework on weekend days when analyzing weekend childcare time.<sup>9</sup>

These results are reported in Tables 11 and 12, for mothers and fathers respectively. When the father contributes a greater share of housework time on weekdays, he also contributes more time to childcare on weekdays and the mother contributes less. This effect is largest in Korea where gender norms are generally more traditional, suggesting that the effect could be nonlinear. The effect is also more significant for total childcare time rather than quality childcare time at least for fathers. Looking at weekend day time diaries, the effect is primarily significant only in Korea.<sup>10</sup> Fathers and mothers appear to be substitutes in the provision of childcare time.

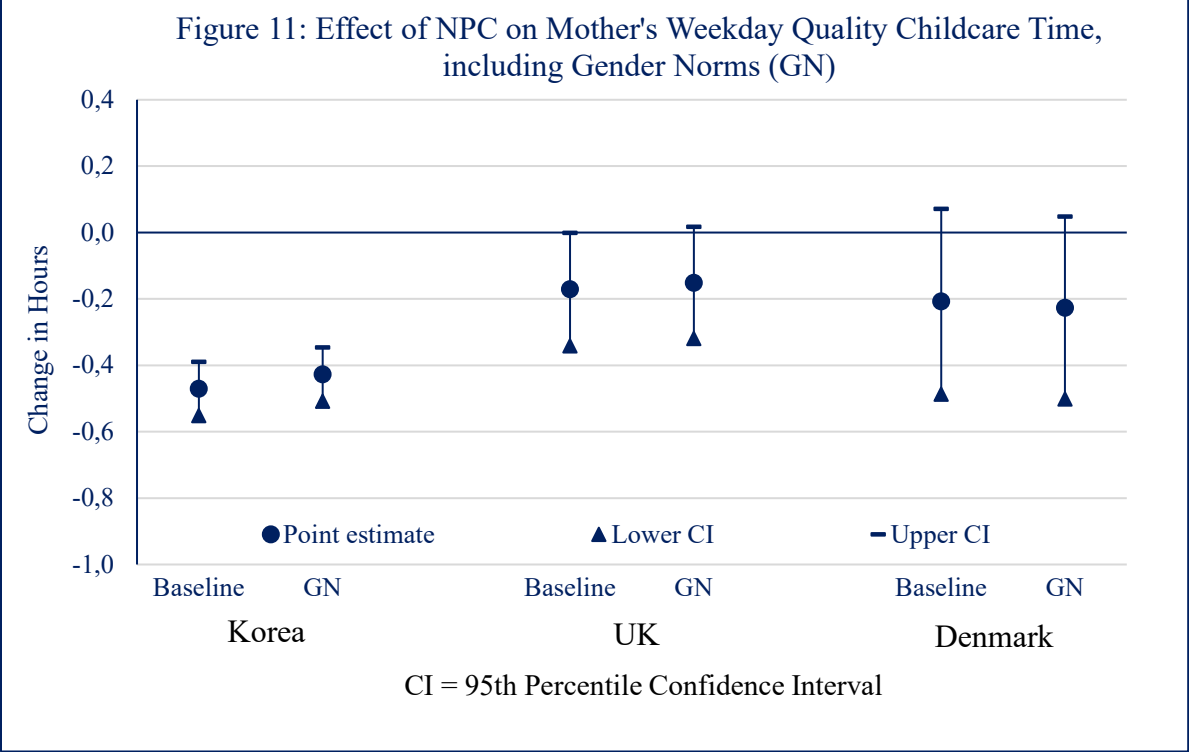
Looking at the impact controlling for the father’s share of housework has on the coefficient to NPC provides evidence of missing variable bias. In the case of Korea, the coefficient to NPC

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<sup>9</sup> The sample sizes underlying these estimates are smaller as each partner must complete a time diary.

<sup>10</sup> That father’s share of housework time is not particularly predictive of weekend time use may also be because the correlation between fathers’ share of housework and fathers’ share of childcare is substantially smaller on weekends than on weekdays. This is true in all three countries.

in the weekday childcare time equations for mothers declines by 7 (10) percentage points for total (quality) childcare time, while in the UK these coefficients decline by 6 (12) percentage points. For fathers in Korea, the coefficients to NPC more than double and become statistically significant. The effect of NPC remains insignificant for fathers in both the UK and Denmark. The magnitude of the effect is smaller on weekend days and primarily significant in Korea. Gender role attitudes appear to help explain the impact of NPC on mothers' childcare time within Korea and the UK. They likely explain as well some of the cross-country differences, but identifying the magnitude of that effect is difficult. These effects are illustrated for mothers' weekday quality childcare time in Figure 11.



**7. Conclusion**

This paper provides evidence on how the use of NPC affects mothers' and fathers' employment, hours worked, and childcare time in Korea, the UK, and Denmark. By leveraging survey and time-diary data from each of these countries, we show that having NPC for children less than age ten significantly increases the probability of mothers working by 42-43 pp in Korea, 21-23 pp in UK, and 3-21 pp in Denmark. This accords with the prediction that increased access to childcare raises

maternal labour supply. Using NPC also increases the probability fathers work, but the effects are much smaller and not always significant. On the intensive margin, use of NPC has a significant positive effect on hours worked for mothers only in Korea. Thus, using NPC when children are small is expected to mitigate child penalties for mothers in the labour market.

We then examine time spent on childcare on weekdays and weekends and find that mothers using NPC spend significantly less time on childcare in all three countries on weekdays and, in Korea and marginally so in Denmark, on weekends, as well. This suggests that substitution occurs with respect to the quantity of childcare provided by mothers. However, quality time is lower on weekdays only in Korea, not in Denmark and not by much in the UK. Danish and UK mothers, thus, seem to behave like German mothers when it comes to complementing NPC with home care, as found by Jessen et al. (2021), but the overall finding that quality time is not reduced when mothers use center-based care does not seem to be universal. Also, unlike the German case, this effect in Denmark seems to be driven by more-educated mothers. At the same time, in all three countries fathers' childcare time (whether total time or quality time) is largely unaffected by the availability of childcare. Simple OLS models display coefficient stability for the majority of estimates, indicating that endogeneity bias alone is not driving these results.

We consider three mechanisms by which Danish and UK mothers but not Korean mothers who use NPC are able to provide as much quality childcare on weekdays as mothers not using NPC – these are family-friendly policies relating to work scheduling, the type of childcare (formal or informal), and gender norm attitudes as captured by father's involvement in housework. These mechanisms (as captured via the chosen proxies) do explain in part the differences across countries in maternal quality time on weekdays. We find that in particular the use of informal childcare in Korea is related to why Korean mothers provide less quality time on weekdays compared to Danish and UK mothers. We also find that, in the case of the UK, mothers using formal care spend less quality time on weekdays while mothers using informal care are prone to spend more on weekends. These results may point to the fact that important differences in formal and informal childcare quality exist around the world or that parents in different settings place different values on quality childcare time. In the Korean setting, mothers may substitute their quality time on weekdays with care given by a parent or parent-in-law. In the UK, mothers using formal care seem to use it as a substitute for their own quality care time. In Denmark, the use of formal childcare and parental care appear to be neither complements nor substitutes, as we do not find that mothers significantly

change their quality time when they use NPC. Our results also point to the importance of flexible work time schedules in the UK and Korea, where we find that family-friendly work scheduling provisions increase quality time provided on weekdays by mothers using NPC. Flexible working arrangements thus enable mothers using NPC to both maintain an attachment to the labour market and provide more quality childcare time. Finally, we find that fathers who contribute a greater share of housework on weekdays also contribute more childcare time while their partners contribute less, and including this control variable reduces the magnitude of the impact NPC has on weekday childcare time, both total and quality time, for mothers in Korea and the UK.

Our results highlight the need to better understand how government child care policies, labour market conditions, and internal family preferences affect and interact in the decision of how families allocate their time use. For example, if policymakers wish to extend the use of NPC in order to increase labour market participation of mothers, subsidizing the cost of formal could be a relevant policy in the UK, as formal care could perhaps spur more mothers to accept employment. NPC availability is important, but our results show that it may not always be enough if other factors restrict its use. Korea offers an important illustration of this point. Here, universal and low cost NPC is available, but not used by a majority of families in the afternoon due to a workplace culture of long and inflexible working hours. Greater workplace flexibility would make the use of formal NPC in Korea a more viable option for many families and may especially increase mothers' labour market participation. Such would also give employed mothers more time to spend with their children. NPC availability may also not be enough if parents perceive the quality of formal child care to be low. Therefore, educating care workers and regulating child day care activities may be an important path to ensure that formal NPC is of high quality. Knowledge of this quality, the activities and care given to children, should then be shared with parents. This knowledge would affect the willingness to use formal NPC instead of informal NPC and inform parents in their choice of which activities they need to complement at home. Finally, our results for UK and Korea show that there is a need to foster a more equitable division of labour in the household. Changing gender norms is important in this regard, but this is a societal shift that needs to be addressed both through education within families, awareness campaigns and through policies such as providing (paid) parental leave and encouraging the division of parental leave between mothers and fathers. The Korean government has begun to implement such leave policies, but gender norms are difficult to change.

During the preparation of this work the author(s) used Copilot on a few occasions in order to improve syntax of their own content. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the published article.

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Table 1: Employment Status by Use of Non-Parental Care

Use of Non-Parental Care	<b>Mothers</b>			<b>Fathers</b>		
	No Mean	Yes Mean	Difference P-Value	No Mean	Yes Mean	Difference P-Value
<b>Korea</b>						
Employed (from survey)	0.261	0.705	0.000	0.968	0.977	0.367
Usual hours of work per week, if working (from survey)	31.358	37.961	0.000	48.951	49.489	0.404
Employed (1 if weekday diary shows working)	0.193	0.629	0.000	0.926	0.938	0.397
Hours worked on weekday, if working (from diary)	5.367	6.316	0.000	7.774	7.842	0.745
# of Weekday responses	633	682		633	682	
<b>United Kingdom</b>						
Employed (from survey)	0.591	0.806	0.000	0.899	0.973	0.003
Usual hours of work per week, if working (from survey)	27.659	29.141	0.373	40.198	42.592	0.061
Employed (1 if weekday diary shows working)	0.384	0.594	0.000	0.751	0.824	0.063
Hours worked on weekday, if working (from diary)	5.992	6.577	0.094	8.129	7.913	0.392
# of Weekday responses	346	200		295	182	
<b>Denmark</b>						
Employed (from survey)	0.793	0.858	0.092	0.933	0.935	0.930
Usual hours of work per week, if working (from survey)	36.547	35.595	0.286	41.269	40.963	0.705
Employed (1 if weekday diary shows working)	0.437	0.662	0.000	0.778	0.784	0.901
Hours worked on weekday, if working (from diary)	7.354	7.131	0.487	7.768	8.486	0.014
# of Weekday responses	105	581		94	544	

Table 2: Childcare Time by Use of Non-Parental Care

Use of Non-Parental Care	Mothers			Fathers		
	No Mean	Yes Mean	Difference P-Value	No Mean	Yes Mean	Difference P-Value
<b>Korea</b>						
Childcare time (hours, for all ages)						
Weekday	3.930	2.025	0.000	0.687	0.582	0.026
% zero	1.5%	4.9%		41.8%	42.7%	
Weekend	2.954	1.759	0.000	1.640	1.133	0.000
% zero	4.8%	9.9%		21.3%	33.4%	
Quality childcare time (hours, for age <10)						
Weekday	1.195	0.646	0.000	0.299	0.247	0.103
% zero	20.6%	34.8%		64.3%	69.2%	
Weekend	0.833	0.612	0.001	0.766	0.518	0.002
% zero	39.9%	48.7%		45.0%	53.9%	
# of weekday responses	633	682		633	682	
# of weekend day responses	463	471		463	471	
<b>United Kingdom</b>						
Childcare time (hours, for all ages)						
Weekday	2.294	2.181	0.519	0.775	1.036	0.015
% zero	6.07%	4.00%		35.25%	24.18%	
Weekend	1.940	2.415	0.006	1.220	1.810	0.000
% zero	14.89%	8.33%		35.82%	22.29%	
Quality childcare time (hours, for all ages)						
Weekday	0.628	0.655	0.730	0.302	0.419	0.043
% zero	40.75%	37.00%		66.44%	53.30%	
Weekend	0.549	0.915	0.000	0.561	0.952	0.000
% zero	50.8%	35.9%		63.5%	42.3%	
# of weekday responses	346	200		295	182	
# of weekend day responses	329	192		282	175	

Table 2: Childcare Time by Use of Non-Parental Care – cont.

Use of Non-Parental Care	<b>Mothers</b>			<b>Fathers</b>		
	No Mean	Yes Mean	Difference P-Value	No Mean	Yes Mean	Difference P-Value
<b>Denmark</b>						
Childcare time (hours, for all ages)						
Weekday	2.696	1.600	0.000	1.531	1.057	0.002
% zero	4.76%	16.52%		19.15%	28.57%	
Weekend	2.549	1.605	0.000	2.069	1.245	0.000
% zero	16.19%	25.99%		27.66%	39.52%	
Quality childcare time (hours, for all ages)						
Weekday	1.071	0.762	0.011	0.667	0.479	0.050
% zero	40.00%	49.57%		53.19%	63.77%	
Weekend	1.233	0.824	0.005	0.973	0.751	0.147
% zero	42.86%	53.70%		58.51%	61.03%	
# of weekday responses	105	581		94	544	
# of weekend day responses	102	552		91	530	

Table 3: Effect of Non-Parental Care on Employment

Outcome:	Mothers				Fathers			
	Employed, survey	Employed, time-diary	Hours worked, survey	Hours worked, time- diary	Employed, survey	Employed, time-diary	Hours worked, survey	Hours worked, time- diary
<b>Korea</b>								
Unconditional	0.4446 (0.0247)	0.4363 (0.0199)	6.6029 (1.3240)	0.9488 (0.1690)	0.0081 (0.0090)	0.0127 (0.0113)	0.5384 (0.6456)	0.0680 (0.0957)
Conditional	0.4318 (0.0253)	0.4216 (0.0203)	6.3254 (1.3167)	0.9183 (0.1691)	0.0039 (0.0092)	0.0050 (0.0116)	0.4936 (0.6557)	0.1021 (0.0977)
Mean	0.49	0.42	36.27	6.11	0.97	0.93	49.23	7.81
Delta *	1.58	1.59	13.93	11.94				
R <sup>2</sup> (unc., con.)	(0.197, 0.208)	(0.195, 0.206)	(0.037, 0.085)	(0.036, 0.063)	(0.001, 0.014)	(0.001, 0.011)	(0.001, 0.031)	(0.000, 0.014)
Observations	1315	1982	646	849	1315	1982	1279	1858
<b>UK</b>								
Unconditional	0.2149 (0.0411)	0.2096 (0.0436)	1.4813 (1.6566)	0.5843 (0.3439)	0.0742 (0.0246)	0.0733 (0.0393)	2.3939 (1.2731)	-0.2163 (0.2529)
Conditional	0.2318 (0.0436)	0.2096 (0.0491)	1.9454 (1.9280)	0.1503 (0.4263)	0.0781 (0.0268)	0.0757 (0.0445)	2.7112 (1.4466)	-0.1969 (0.2780)
Mean	0.6680	0.6447	28.3043	6.2652	0.9265	0.7781	41.1290	8.0441
Delta *	9.16	4.61			10.80			
R <sup>2</sup> (unc., con.)	(0.048, 0.216)	(0.041, 0.113)	(0.002, 0.107)	(0.012, 0.108)	(0.019, 0.146)	(0.007, 0.068)	(0.008, 0.068)	(0.002, 0.159)
Observations	546	546	362	248	477	477	439	373
<b>Denmark</b>								
Unconditional	0.0644 (0.0381)	0.2246 (0.0506)	-0.9795 (0.8305)	-0.2223 (0.3197)	0.0024 (0.0269)	0.0056 (0.0450)	-0.3059 (0.8069)	0.7187 (0.2905)
Conditional	0.0256 (0.0375)	0.2067 (0.0533)	-0.9133 (0.8607)	-0.2579 (0.3284)	0.0136 (0.0269)	0.0613 (0.0473)	-0.6557 (0.8449)	0.7456 (0.3092)
Mean	0.89	0.66	35.34	7.10	0.96	0.80	40.96	8.40
Delta *		5.36						29.16
R <sup>2</sup> (unc., con.)	(0.004, 0.159)	(0.029, 0.064)	(0.002, 0.071)	(0.001, 0.055)	(0.000, 0.147)	(0.000, 0.055)	(0.000, 0.057)	(0.012, 0.047)
Observations	653	653	583	434	623	623	595	500

\* Deltas are reported only when the coefficient to non-parental care is statistically significant at the 5% level.

Table 4: Effect of Non-Parental Care on Childcare Time

Outcome:	<b>Mothers</b>				<b>Fathers</b>			
	Total		Quality		Total		Quality	
	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend
<b>Korea</b>								
Unconditional	-1.9051 (0.0862)	-1.1953 (0.1094)	-0.5492 (0.0418)	-0.2212 (0.0541)	-0.1051 (0.0424)	-0.5073 (0.0872)	-0.0521 (0.0228)	-0.1684 (0.0544)
Conditional	-1.6125 (0.0803)	-0.9002 (0.1039)	-0.4705 (0.0415)	-0.1768 (0.0548)	-0.0100 (0.0417)	-0.2803 (0.0821)	-0.0178 (0.0229)	-0.0798 (0.0538)
Mean	2.94	2.35	0.91	0.72	0.63	1.38	0.27	0.68
Delta *	3.61	3.90	4.01	5.73		3.07		
R <sup>2</sup> (unc., con.)	(0.198, 0.341)	(0.088, 0.229)	(0.080, 0.146)	(0.013, 0.052)	(0.003, 0.091)	(0.027, 0.191)	(0.003, 0.053)	(0.008, 0.092)
Observations	1982	1237	1982	1237	1982	1237	1982	1237
<b>UK</b>								
Unconditional	-0.1139 (0.1770)	0.4748 (0.1703)	0.0266 (0.0772)	0.3664 (0.0888)	0.2605 (0.1057)	0.5903 (0.1637)	0.1174 (0.0576)	0.3913 (0.1076)
Conditional	-0.6241 (0.1799)	-0.0887 (0.1730)	-0.1824 (0.0865)	0.1259 (0.0970)	-0.0023 (0.1161)	0.0889 (0.1735)	-0.0132 (0.0653)	0.0221 (0.1165)
Mean	2.25	2.11	0.64	0.68	0.87	1.44	0.35	0.71
Delta *	3.19		1.90					
R <sup>2</sup> (unc., con.)	(0.001, 0.243)	(0.015, 0.248)	(0.000, 0.080)	(0.032, 0.145)	(0.013, 0.128)	(0.028, 0.201)	(0.009, 0.067)	(0.028, 0.167)
Observations	546	521	546	521	477	457	477	457
<b>Denmark</b>								
Unconditional	-1.0956 (0.1757)	-0.9337 (0.2095)	-0.3092 (0.1213)	-0.4085 (0.1440)	-0.4742 (0.1511)	-0.8239 (0.1191)	-0.1883 (0.0959)	-0.2216 (0.1527)
Conditional	-0.7824 (0.1820)	-0.3910 (0.2069)	-0.1808 (0.1279)	-0.1158 (0.1484)	-0.2396 (0.1569)	-0.2841 (0.2007)	-0.1174 (0.1015)	0.0673 (0.1523)
Mean	1.72	1.66	0.79	0.85	1.07	1.36	0.50	0.80
Delta *	2.82							
R <sup>2</sup> (unc., con.)	(0.056, 0.117)	(0.031, 0.181)	(0.010, 0.040)	(0.013, 0.092)	(0.016, 0.095)	(0.028, 0.160)	(0.006, 0.049)	(0.003, 0.078)
Observations	653	623	653	623	623	607	623	607

\* Deltas are reported only when the coefficient to non-parental care is statistically significant at the 5% level.

Table 5: Effect of Non-Parental Care on Mother's Quality Childcare Time by Mother's Education

Outcome:	Highly Educated		Less Educated	
	Weekday	Weekend	Weekday	Weekend
<b>Korea</b>				
Unconditional	-0.6300 (0.0629)	-0.1764 (0.0755)	-0.4656 (0.0544)	-0.2654 (0.0773)
Conditional	-0.5628 (0.0621)	-0.1651 (0.0767)	-0.3953 (0.0550)	-0.1828 (0.0790)
Mean	1.04	0.69	0.79	0.75
Delta *	4.50	15.40	3.74	3.69
R <sup>2</sup> (unc., con.)	(0.094,0.159)	(0.009,0.045)	(0.067,0.125)	(0.018,0.073)
Observations	968	593	1014	644
<b>UK</b>				
Unconditional	0.0336 (0.0981)	0.4408 (0.1180)	-0.0392 (0.1312)	0.1381 (0.1381)
Conditional	-0.2027 (0.1118)	0.2105 (0.1326)	-0.1816 (0.1420)	0.0330 (0.1420)
Mean	0.6816	0.7788	0.5788	0.5413
Delta *				
R <sup>2</sup> (unc., con.)	(0.000,0.087)	(0.044,0.147)	(0.000,0.127)	0.005,0.201)
Observations	317	308	229	213
<b>Denmark</b>				
Unconditional	0.0481 (0.1623)	-0.0636 (0.1911)	-0.6949 (0.1767)	-0.7043 (0.2132)
Conditional	0.1316 (0.1661)	0.1000 (0.1897)	-0.6345 (0.1978)	-0.3111 (0.2291)
Mean	0.8409	0.8663	0.8258	0.8619
Delta *			3.43	
R <sup>2</sup> (unc., con.)	(0.000,0.050)	(0.000,0.111)	(0.054,0.108)	(0.041,0.173)
Observations	385	367	272	260

\* Deltas are reported only when the coefficient to non-parental care is statistically significant at the 5% level.

Standard errors are reported in parentheses below coefficient values.

All models include controls for each partner's education and age, the number of children age 10-18, the number of preschool age children, the number of other children less than age 10, as well as dummy variables to identify households with persons age 65 or older, residing in an urban area (or best available), and cohabiting couples. The comparison group is households not using non-parental care.

Table 6: Employment Hours and Share by Use of Non-Parental Care

Use of Non-Parental Care	Mothers			Fathers			Father's Share		
	No	Yes	Difference	No	Yes	Difference	No	Yes	Difference
	Mean	Mean	P-Value	Mean	Mean	P-Value	Mean	Mean	P-Value
<b>Korea</b>									
Men's Share of Usual Hours Worked (Survey)							0.893	0.691	0.000
Men's Share of Work Time (Weekday Diary)							0.905	0.692	0.000
Time Start Work if Employed (Weekday)	10.415	9.184	0.000	8.086	7.966	0.320			
Time End Work if Employed (Weekday)	16.976	16.907	0.863	18.293	18.337	0.690			
Hours Not Working between Start & End Time	1.315	1.024	0.232	1.572	1.625	0.778			
% of Work Time not at Work	10.51%	9.39%	0.603	11.91%	12.12%	0.790			
<b>United Kingdom</b>									
Men's Share of Usual Hours Worked (Survey)							0.750	0.666	0.000
Men's Share of Work Time (Weekday Diary)							0.767	0.653	0.001
Time Start Work if Employed (Weekday)	10.383	10.054	0.406	9.408	9.041	0.239			
Time End Work if Employed (Weekday)	15.590	16.705	0.021	16.297	16.687	0.330			
Hours Not Working between Start & End Time	0.629	1.017	0.020	0.884	0.981	0.510			
% of Work Time not at Work	7.75%	10.87%	0.055	8.79%	9.83%	0.379			
<b>Denmark</b>									
Men's Share of Usual Hours Worked (Survey)							0.622	0.590	0.076
Men's Share of Work Time (Weekday Diary)							0.711	0.622	0.016
Time Start Work if Employed (Weekday)	8.861	8.119	0.010	8.248	8.305	0.877			
Time End Work if Employed (Weekday)	15.710	15.211	0.243	15.431	15.911	0.337			
Hours Not Working between Start & End Time	0.384	0.416	0.876	0.787	0.516	0.142			
% of Work Time not at Work	3.51%	3.94%	0.804	5.39%	4.08%	0.308			

Table 7: Effect of NPC on Weekday Childcare Time Controlling for Family-Friendly Job Attributes

	<b>Mothers</b>				<b>Fathers</b>			
<b>Panel A: Korea</b>								
	Total Time		Quality Time		Total Time		Quality Time	
	Weekday		Weekday		Weekday		Weekday	
Coefficient to:								
NPC with basic controls	-1.6125	***	-0.4705	***	-0.0100		-0.0178	
	(0.0803)		(0.0415)		(0.0417)		(0.0229)	
NPC controlling for work times	-1.4378	***	-0.3999	***	0.0041		-0.0115	
	(0.0913)		(0.0459)		(0.0406)		(0.0224)	
% Change (if significant)	89.2%		85.0%					
Time start work	0.1162	***	0.0450	***	0.0841	***	0.0352	***
	(0.0210)		(0.0106)		(0.0149)		(0.0066)	
Time end work	-0.1074	***	-0.0439	*	-0.1046	***	-0.0499	***
	(0.0204)		(0.0242)		(0.0110)		(0.0067)	
Time not working at work	0.1325	**	0.0637	***	0.1619	***	0.0797	***
	(0.0560)		(0.0230)		(0.0289)		(0.0155)	
% of time at work not working	-0.0055		-0.0034		-0.0125	**	-0.0071	**
	(0.0102)		(0.0043)		(0.0051)		(0.0027)	
<b>Panel B: UK</b>								
	Total Time		Quality Time		Total Time		Quality Time	
	Weekday		Weekday		Weekday		Weekday	
Coefficient to:								
NPC with basic controls	-0.6241	***	-0.1824	**	-0.0023		-0.0132	
	(0.1799)		(0.0865)		(0.1161)		(0.0653)	
NPC controlling for work times	-0.6020	***	-0.1344		-0.0253		-0.0199	
	(0.1897)		(0.0880)		(0.1175)		(0.0669)	
% Change	96.5%		73.7%					
Time start work	0.0304		0.0218		-0.0026		0.0038	
	(0.0327)		(0.0163)		(0.0292)		(0.0188)	
Time end work	-0.0344	*	-0.0214	**	-0.0164		-0.0127	
	(0.0208)		(0.0095)		(0.0159)		(0.0103)	
Time not working at work	-0.0351		-0.0067		-0.2137		-0.0957	
	(0.1619)		(0.1050)		(0.1218)		(0.0524)	
% of time at work not working	0.6542		0.0882		3.4338		1.5981	
	(1.9623)		(1.1292)		(1.3720)		(0.7248)	

Table 7: Effect of NPC on Weekday Childcare Time Controlling for Family-Friendly Job Attributes (cont.)

<b>Panel C: Denmark</b>	<b>Mothers</b>		<b>Fathers</b>	
	Total Time Weekday	Quality Time Weekday	Total Time Weekday	Quality Time Weekday
Coefficient to:				
NPC with basic controls	-0.7824 *** (0.1820)	-0.1808 (0.1279)	-0.2396 (0.1569)	-0.1174 (0.1015)
NPC controlling for work times	-0.8076 *** (0.1887)	-0.1899 (0.1295)	-0.2185 (0.1579)	-0.1018 (0.1025)
% Change	103.2%			
Time start work	-0.0213 (0.0602)	0.0075 (0.0356)	-0.0066 (0.0216)	-0.0120 (0.0131)
Time end work	-0.0397 (0.0418)	-0.0410 * (0.0233)	-0.0187 (0.0200)	-0.0094 (0.0109)
Time not working at work	-0.1409 (0.1905)	-0.1184 (0.1229)	0.0954 (0.1684)	0.0858 (0.1137)
% of time at work not working	0.0213 (0.0242)	0.0198 (0.0136)	-0.0144 (0.0242)	-0.0104 (0.0175)

Standard errors are reported in parentheses below coefficient values.

\* Indicates statistical significance at the 10% level, \*\* at the 5% level, and \*\*\* at the 1% level for a 2-sided test.

All models include controls for each partner's education and age, the number of children age 10-18, the number of preschool age children, the number of other children less than age 10, as well as dummy variables to identify households with persons age 65 or older, residing in an urban area (or best available), and cohabiting couples. The comparison group is households not using non-parental care.

Table 8: Effect of Care Type on Employment

Dependent variable	<b>Mothers</b>				<b>Fathers</b>			
	Informal		Formal		Informal		Formal	
	<b>Korea</b>				<b>Korea</b>			
Employed, survey	0.669	***	0.404	***	-0.001		0.005	
	(0.055)		(0.026)		(0.023)		(0.009)	
Employed, time-diary	0.703	***	0.389	***	0.041		0.001	
	(0.041)		(0.021)		(0.027)		(0.012)	
Hours worked, survey	10.388	***	5.656	***	0.138		0.503	
	(2.134)		(1.367)		(1.544)		(0.679)	
Hours worked, time-diary	1.652	***	0.788	***	-0.236		0.144	
	(0.265)		(0.176)		(0.226)		(0.100)	
	<b>UK</b>				<b>UK</b>			
Employed, survey	0.230	***	0.237	***	0.065		0.082	***
	(0.068)		(0.049)		(0.046)		(0.031)	
Employed, time-diary	0.162	**	0.245	***	-0.004		0.103	**
	(0.074)		(0.055)		(0.073)		(0.049)	
Hours worked, survey	4.172		0.675		6.489	***	1.915	
	(2.897)		(2.273)		(2.360)		(1.555)	
Hours worked, time-diary	-0.190		0.340		0.376		-0.355	
	(0.629)		(0.474)		(0.438)		(0.312)	

Standard errors are reported in parentheses below coefficient values.

\* Indicates statistical significance at the 10% level, \*\* at the 5% level, and \*\*\* at the 1% level for a 2-sided test. Models include each partner's education and age, the number of children age 10-18, the number of preschool age children, the number of other children less than age 10, as well as dummy variables to identify households with persons age 65 or older, residing in an urban area (or best available), and (in the case of the UK) cohabiting couples. The comparison group is households not using non-parental care.

Table 9: Effect of Care Type on Childcare Time

Dependent variable	Mothers				Fathers			
	Informal		Formal		Informal		Formal	
	<b>Korea</b>				<b>Korea</b>			
Total Childcare time, weekday	-2.472	***	-1.497	***	0.024		-0.016	
	(0.212)		(0.083)		(0.105)		(0.043)	
Total Childcare time, weekend	-0.888	***	-0.889	***	-0.312	*	-0.265	***
	(0.254)		(0.110)		(0.186)		(0.087)	
Quality Childcare time, weekday	-0.732	***	-0.431	***	0.020		-0.025	
	(0.110)		(0.043)		(0.056)		(0.023)	
Quality Childcare time, weekend	-0.264	**	-0.163	***	-0.207	*	0.057	
	(0.124)		(0.058)		(0.118)		(0.057)	
	<b>UK</b>				<b>UK</b>			
Total Childcare time, weekday	-0.298		-0.800	***	0.075		-0.026	
	(0.281)		(0.202)		(0.175)		(0.129)	
Total Childcare time, weekend	0.391		-0.233		0.164		0.071	
	(0.259)		(0.190)		(0.242)		(0.197)	
Quality Childcare time, weekday	0.015		-0.282	***	0.097		-0.044	
	(0.134)		(0.094)		(0.101)		(0.069)	
Quality Childcare time, weekend	0.443	***	0.052		0.139		-0.010	
	(0.145)		(0.100)		(0.160)		(0.132)	

Standard errors are reported in parentheses below coefficient values.

\* Indicates statistical significance at the 10% level, \*\* at the 5% level, and \*\*\* at the 1% level for a 2-sided test. Models include each partner's education and age, the number of children age 10-18, the number of preschool age children, the number of other children less than age 10, as well as dummy variables to identify households with persons age 65 or older, residing in an urban area (or best available), and (in the case of the UK) cohabiting couples. The comparison group is households not using non-parental care.

Table 10: Men's Share of Childcare & Housework Time  
by Use of Non-Parental Care

Use of Non-Parental Care		Men's Share			Difference P-Value
		Overall Mean	No Mean	Yes Mean	
<b>Korea</b>					
Of Childcare Time	weekday	0.174	0.137	0.210	0.000
	weekend	0.342	0.339	0.345	0.873
Of Quality Childcare Time	weekday	0.228	0.199	0.259	0.003
	weekend	0.470	0.464	0.478	0.883
Of Housework Time	weekday	0.128	0.100	0.154	0.000
	weekend	0.243	0.241	0.244	0.793
<b>United Kingdom</b>					
Of Childcare Time	weekday	0.271	0.241	0.320	0.004
	weekend	0.361	0.350	0.377	0.372
Of Quality Childcare Time	weekday	0.339	0.315	0.376	0.160
	weekend	0.474	0.467	0.482	0.736
Of Housework Time	weekday	0.308	0.287	0.344	0.025
	weekend	0.373	0.375	0.368	0.772
<b>Denmark</b>					
Of Childcare Time	weekday	0.410	0.386	0.415	0.462
	weekend	0.460	0.459	0.460	0.989
Of Quality Childcare Time	weekday	0.412	0.418	0.411	0.891
	weekend	0.483	0.433	0.495	0.282
Of Housework Time	weekday	0.426	0.435	0.424	0.754
	weekend	0.502	0.475	0.507	0.366

Table 11: Effect of NPC on Childcare Time Controlling for Gender Norms: Mothers

	Total Time Weekday		Quality Time Weekday		Total Time Weekend		Quality Time Weekend	
<b>Panel A: Korea</b>								
NPC with basic controls	-1.6125	***	-0.4705	***	-0.9002	***	-0.1768	***
	(0.0803)		(0.0415)		(0.1039)		(0.0548)	
NPC controlling for Father's Share of Housework	-1.4975	***	-0.4272	***	-0.8903	***	-0.1687	***
	(0.0794)		(0.0414)		(0.1038)		(0.0545)	
% Change (if significant)	92.9%		90.8%		98.9%		95.4%	
Father's Share of Housework on Weekdays	-1.9449	***	-0.7323	***				
	(0.1993)		(0.1040)					
Father's Share of Housework on Weekend days					-0.6177	**	-0.5088	***
					(0.2549)		(0.1339)	
<b>Panel B: UK</b>								
NPC with basic controls	-0.6093	***	-0.1710	**	-0.0788		0.1143	
	(0.1807)		(0.0868)		(0.1698)		(0.0939)	
NPC controlling for Father's Share of Housework	-0.5703	***	-0.1512	*	-0.0766		0.1115	
	(0.1789)		(0.0858)		(0.1701)		(0.0940)	
% Change (if significant)	93.6%		88.4%					
Father's Share of Housework on Weekdays	-1.0568	***	-0.5353	***				
	(0.2901)		(0.1391)					
Father's Share of Housework on Weekend days					0.0770		-0.0967	
					(0.2771)		(0.1531)	
<b>Panel C: Denmark</b>								
NPC with basic controls	-0.6500	***	-0.2078		-0.3917	*	-0.1899	
	(0.1910)		(0.1423)		(0.2251)		(0.1623)	
NPC controlling for Father's Share of Housework	-0.6731	***	-0.2267		-0.3698	*	-0.1826	
	(0.1889)		(0.1404)		(0.2247)		(0.1625)	
% Change (if significant)	103.6%				94.4%			
Father's Share of Housework on Weekdays	-0.8402	***	-0.6859	***				
	(0.2282)		(0.1696)					
Father's Share of Housework on Weekend days					-0.5525	**	-0.1868	
					(0.2747)		(0.1986)	

Standard errors are reported in parentheses below coefficient values.

\* Indicates statistical significance at the 10% level, \*\* at the 5% level, and \*\*\* at the 1% level for a 2-sided test.

Table 12: Effect of NPC on Childcare Time Controlling for Gender Norms: Fathers

<b><u>Panel A: Korea</u></b>	Total Time		Quality Time		Total Time		Quality Time
Coefficient to:	<u>Weekday</u>		<u>Weekday</u>		<u>Weekend</u>		<u>Weekend</u>
NPC with basic controls	-0.0100 (0.0417)		-0.0178 (0.0229)		-0.2803 *** (0.0821)		-0.0798 (0.0538)
NPC controlling for Father's Share of Housework	-0.1033 *** (0.0397)		-0.0434 * (0.0228)		-0.2987 *** (0.0811)		-0.0819 (0.0538)
% Change (if significant)	1031.1%		243.6%		106.6%		102.6%
Father's Share of Housework on Weekdays	1.5781 *** (0.0996)		0.4328 *** (0.0572)				
Father's Share of Housework on Weekend days					1.1502 *** (0.1992)		0.1312 (0.1322)
 <b><u>Panel B: UK</u></b>							
Coefficient to:	<u>Weekday</u>		<u>Weekday</u>		<u>Weekend</u>		<u>Weekend</u>
NPC with basic controls	-0.0023 (0.1161)		-0.0132 (0.0653)		0.0342 (0.1717)		0.0033 (0.1124)
NPC controlling for Father's Share of Housework	-0.0206 (0.1139)		-0.0193 (0.0650)		0.0329 (0.1725)		0.0009 (0.1130)
% Change (if significant)							
Father's Share of Housework on Weekdays	0.8242 *** (0.1868)		0.2740 ** (0.1066)				
Father's Share of Housework on Weekend days					-0.0249 (0.2898)		-0.0463 (0.1898)
 <b><u>Panel C: Denmark</u></b>							
Coefficient to:	<u>Weekday</u>		<u>Weekday</u>		<u>Weekend</u>		<u>Weekend</u>
NPC with basic controls	-0.2331 (0.1616)		-0.0621 (0.0980)		-0.3414 * (0.2039)		0.0212 (0.1620)
NPC controlling for Father's Share of Housework	-0.2248 (0.1605)		-0.0599 (0.0980)		-0.3356 (0.2043)		0.0319 (0.1622)
% Change (if significant)							
Father's Share of Housework on Weekdays	0.5122 *** (0.1761)		0.1316 (0.1075)				
Father's Share of Housework on Weekend days					-0.1193 (0.2273)		-0.2196 (0.1804)

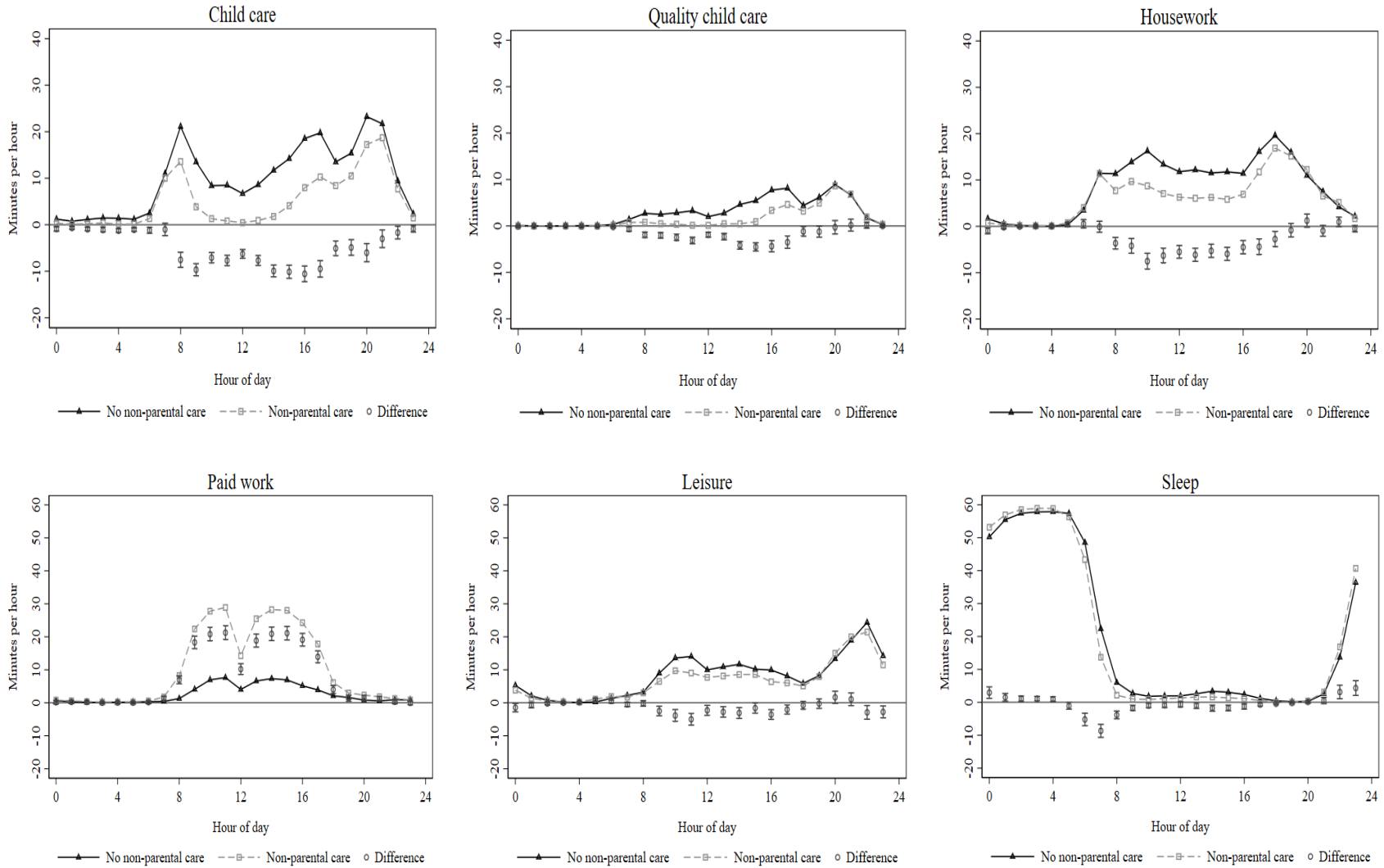
Standard errors are reported in parentheses below coefficient values.

\* Indicates statistical significance at the 10% level, \*\* at the 5% level, and \*\*\* at the 1% level for a 2-sided test.

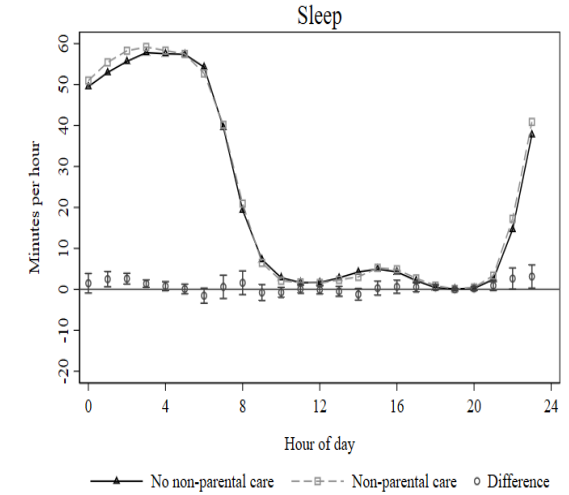
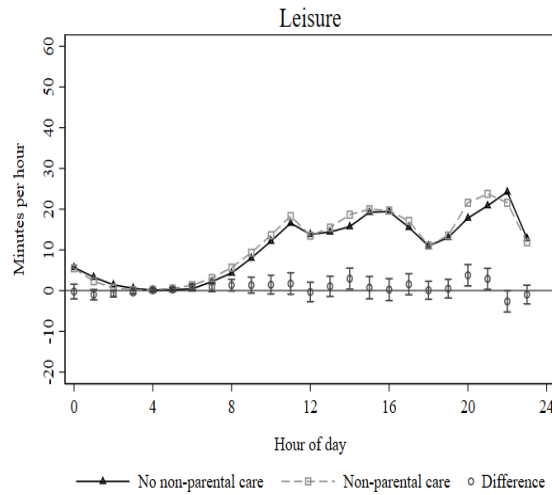
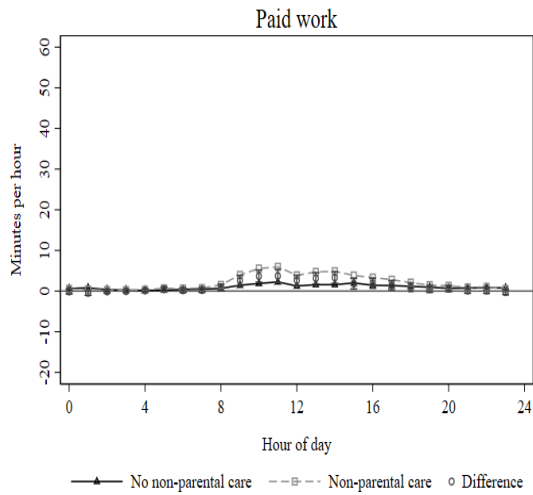
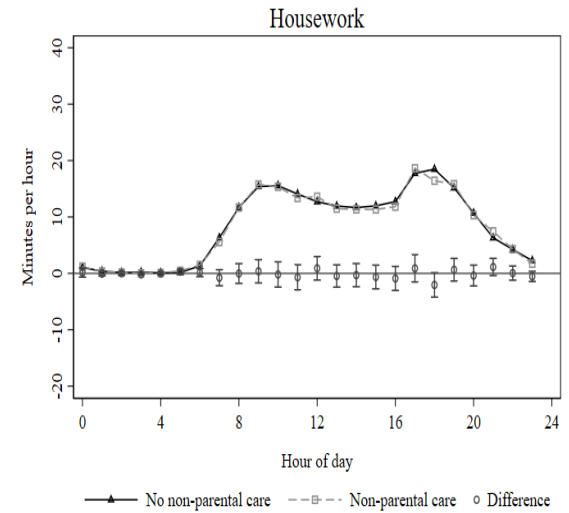
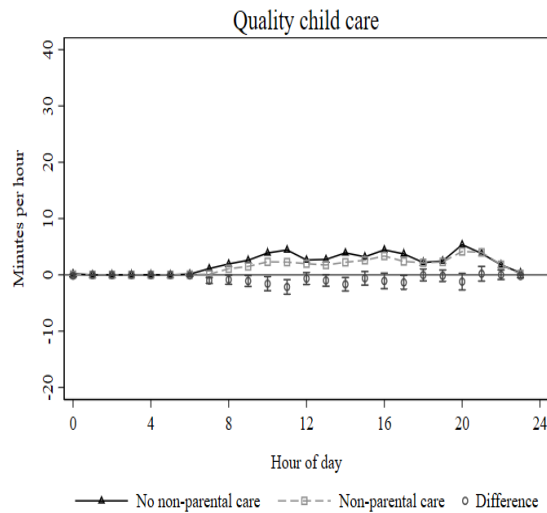
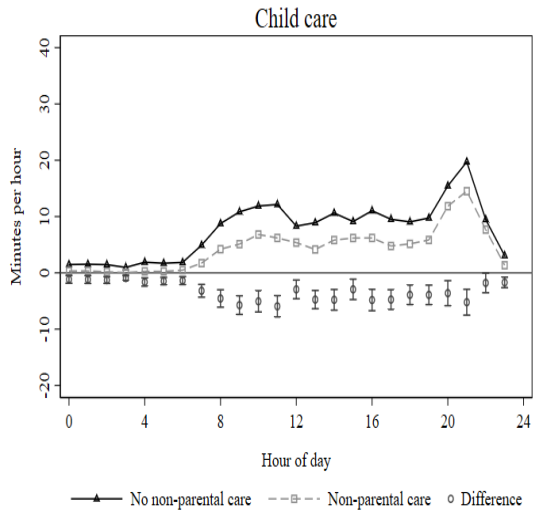
All models include controls for each partner's education and age, the number of children age 10-18, the number of preschool age children, the number of other children less than age 10, as well as dummy variables to identify households with persons age 65 or older, residing in an urban area (or best available), and cohabiting couples. The comparison group is households not using non-parental care.

Appendix Figure 1: Hourly Time-Use, Korea

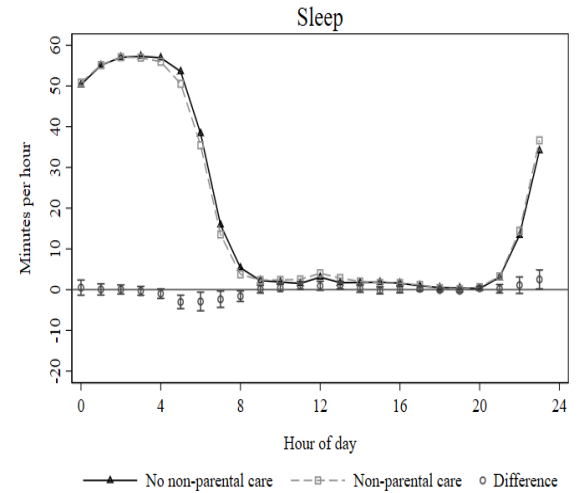
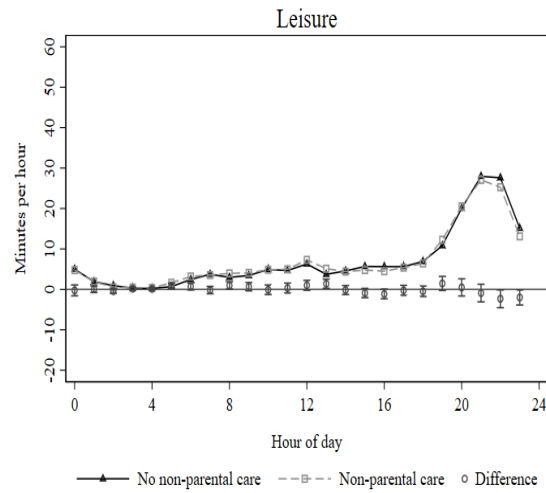
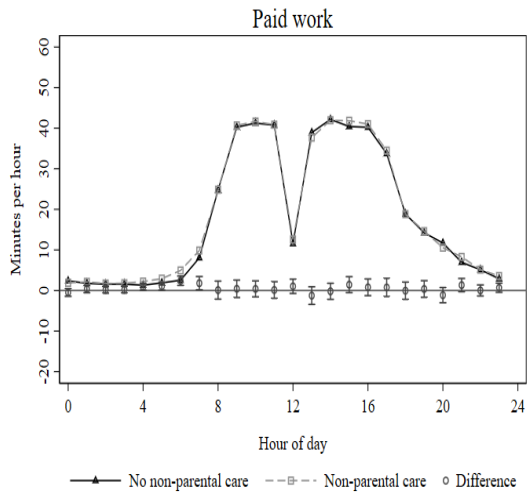
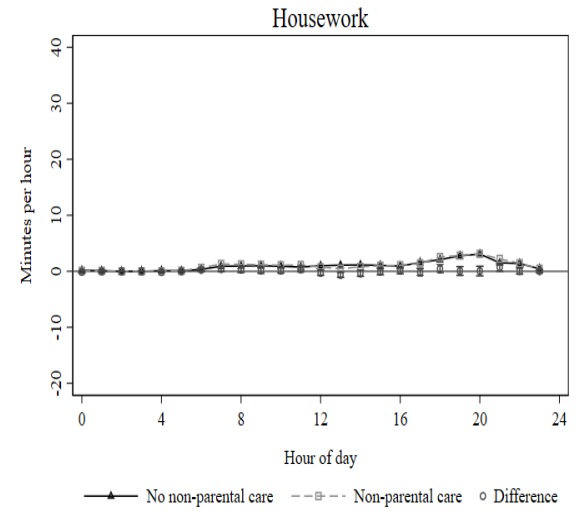
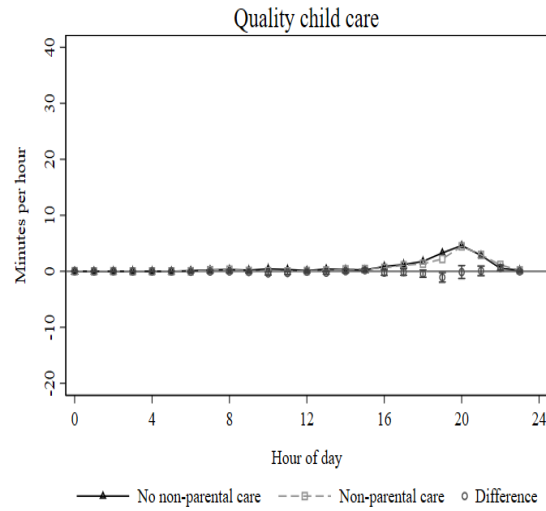
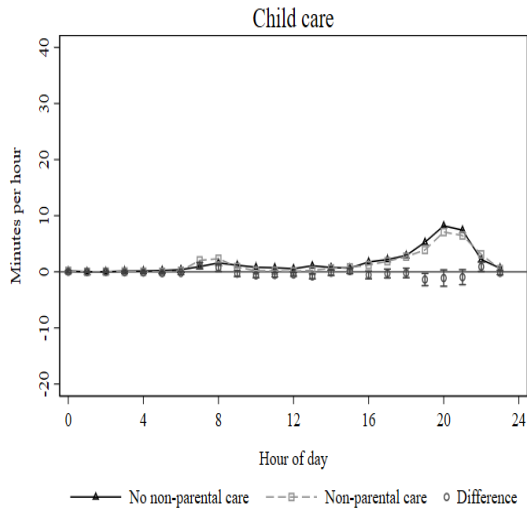
**A. Mothers, Weekday**



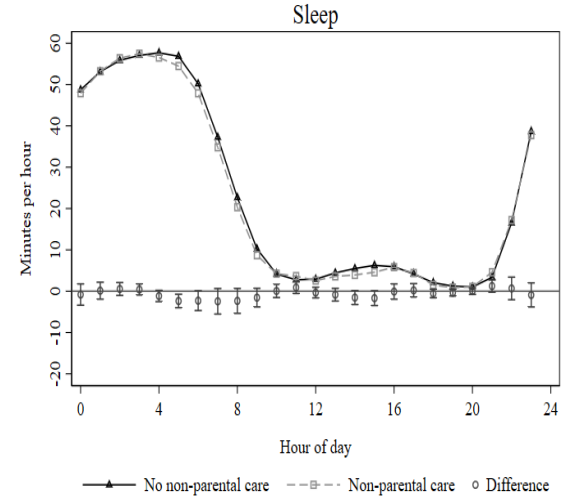
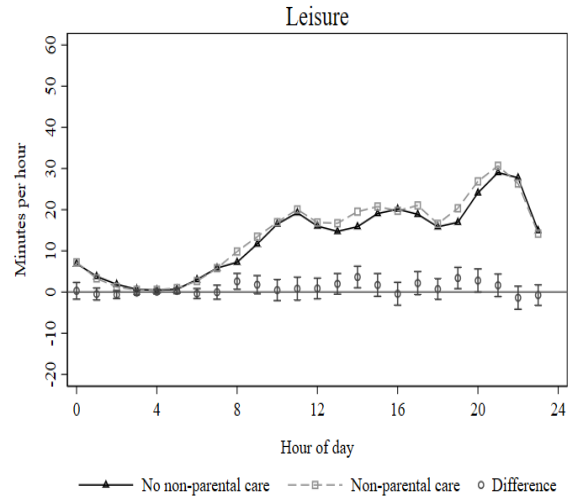
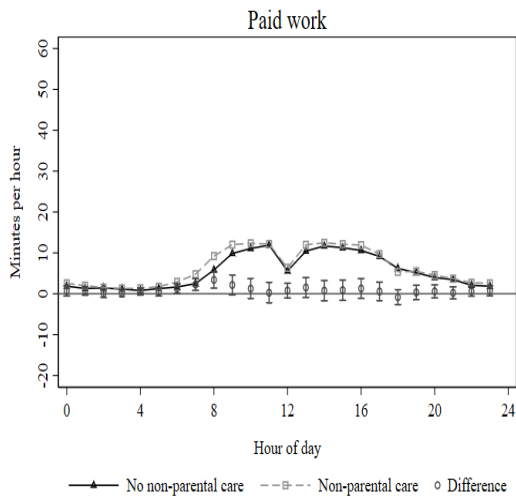
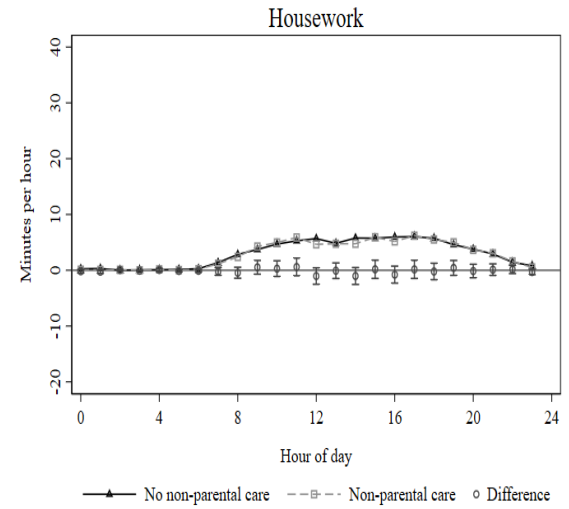
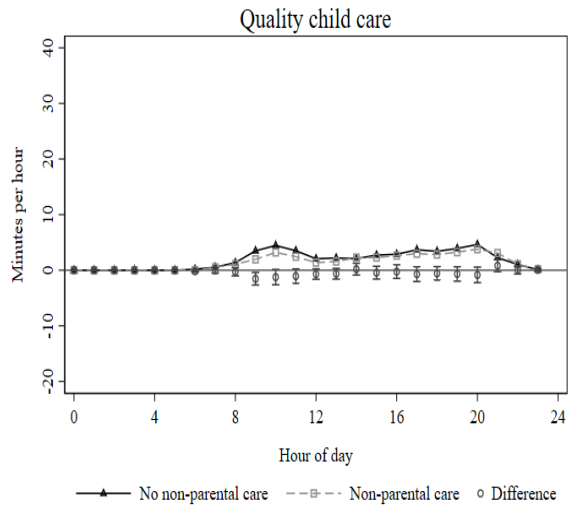
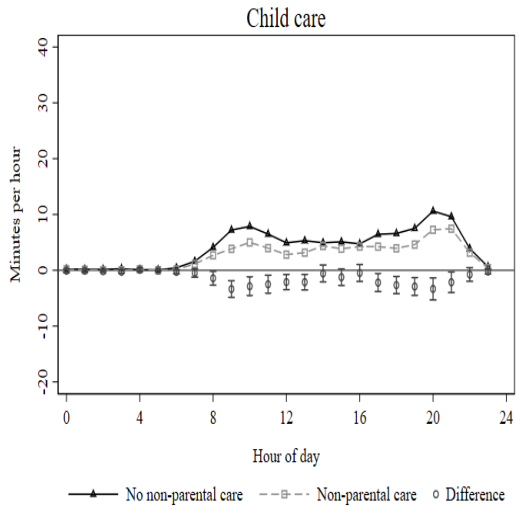
## B. Mothers, Weekend



### C. Fathers, Weekday

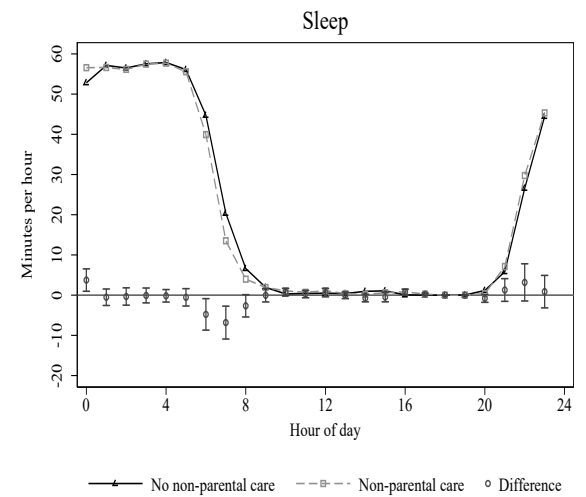
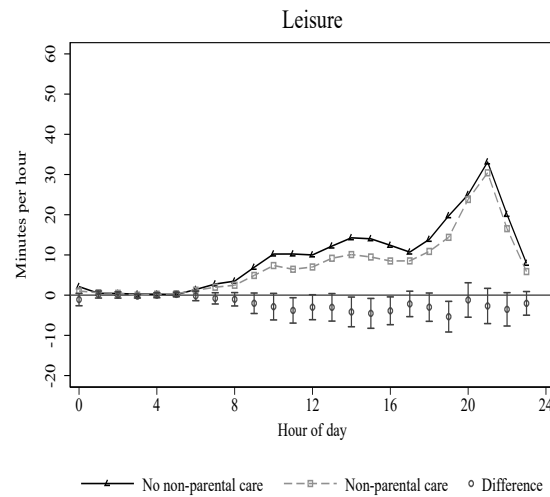
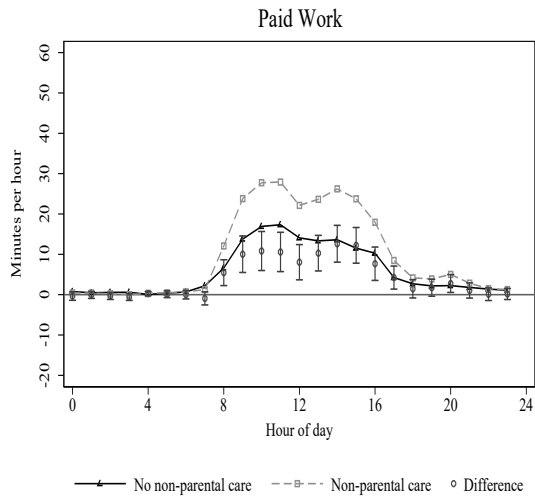
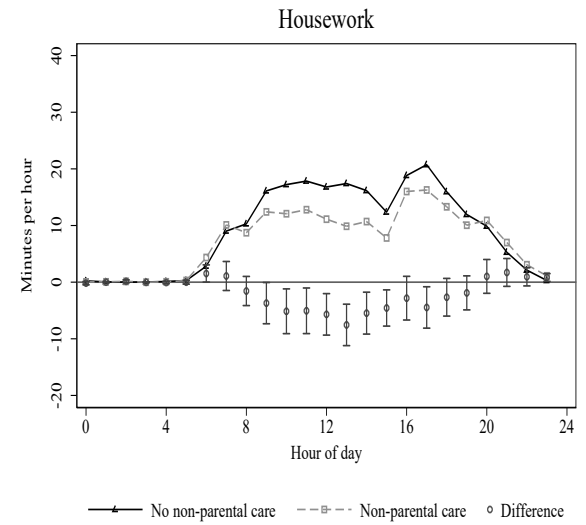
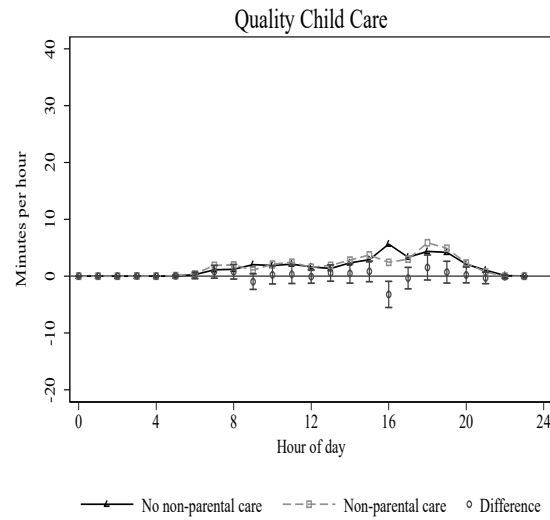
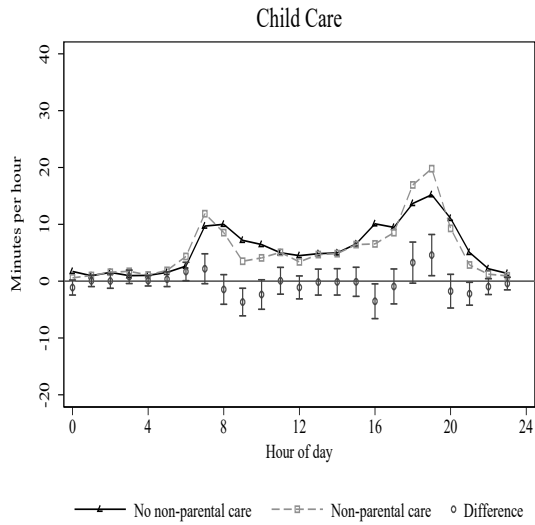


### D. Fathers, Weekend

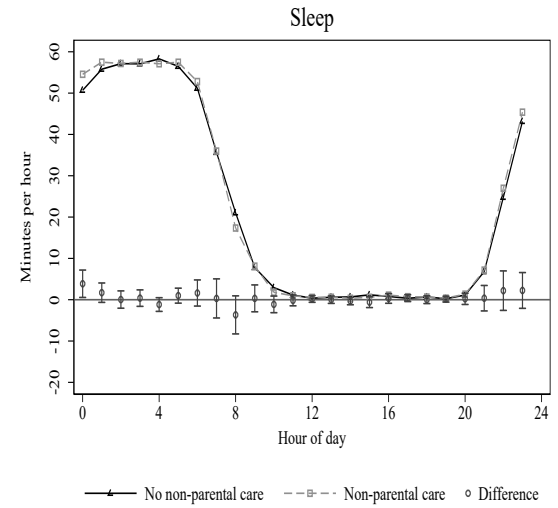
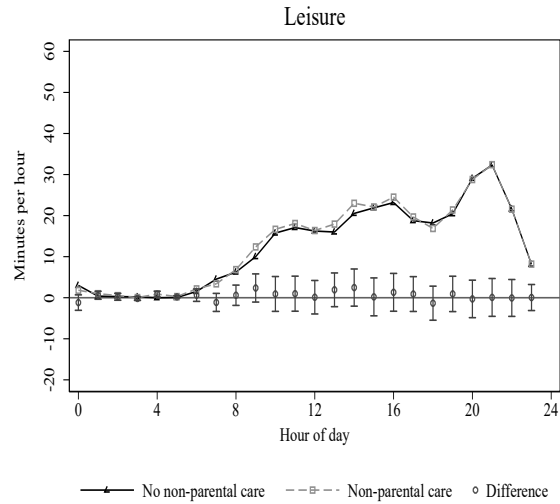
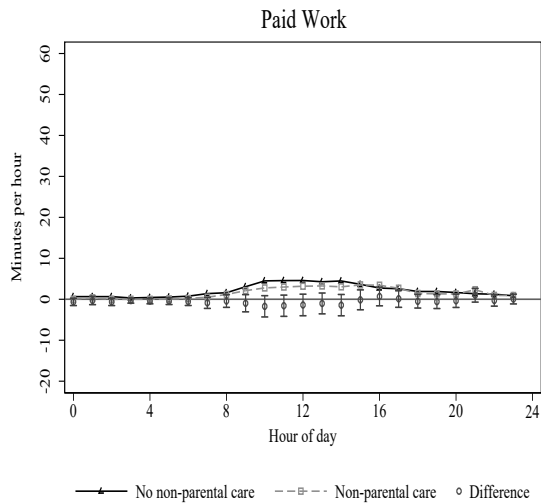
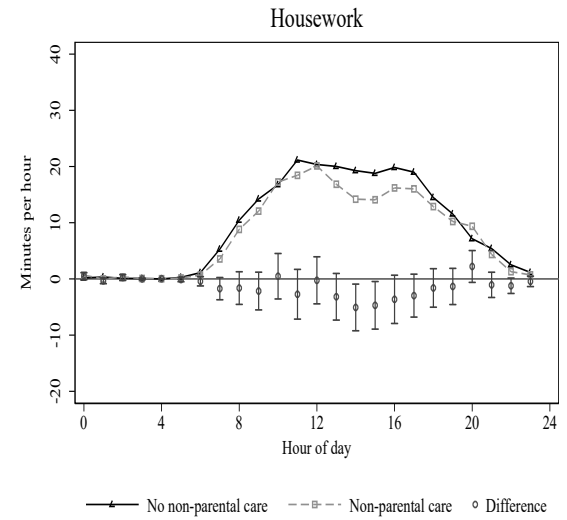
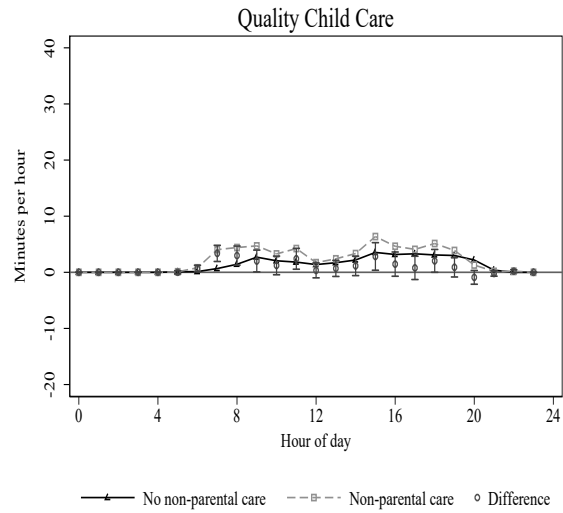
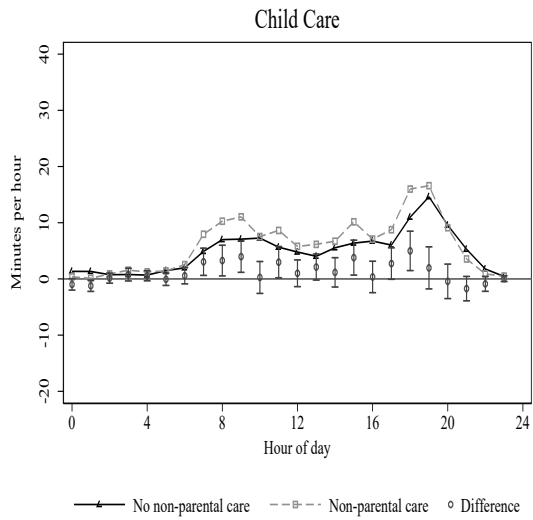


Appendix Figure 2: Hourly Time-Use, United Kingdom

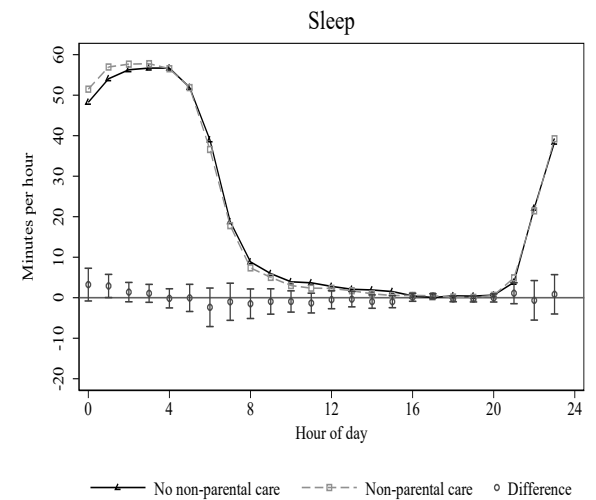
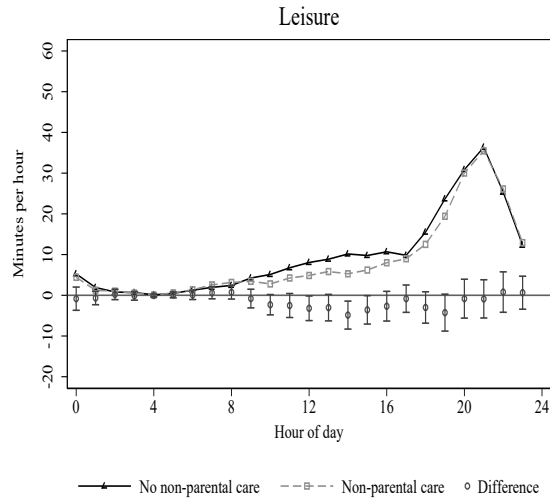
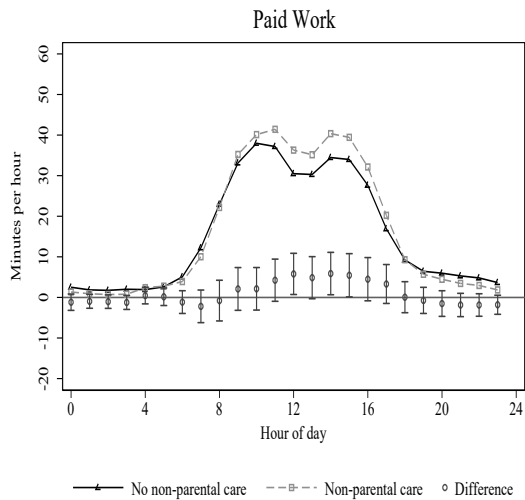
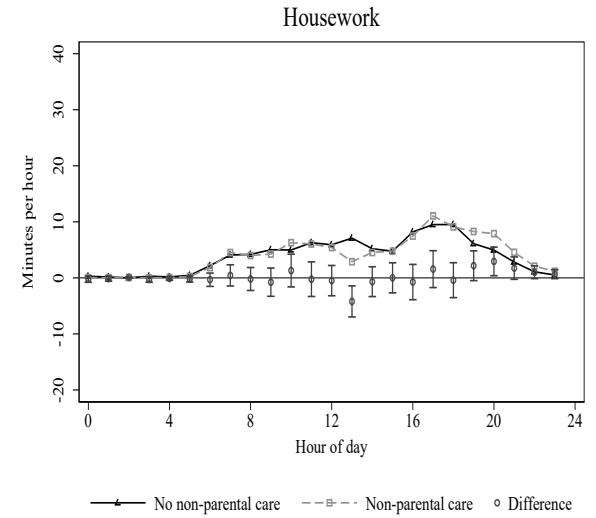
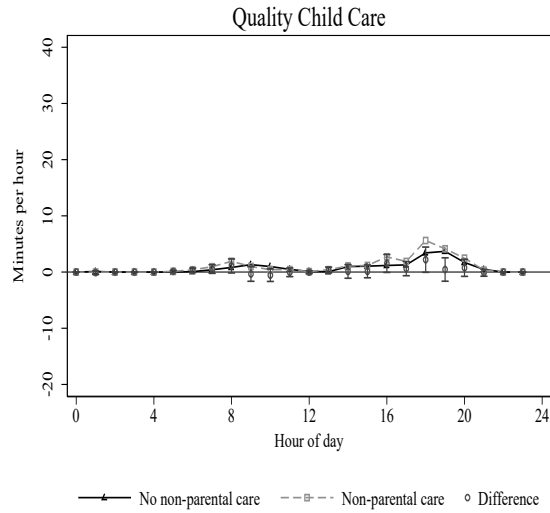
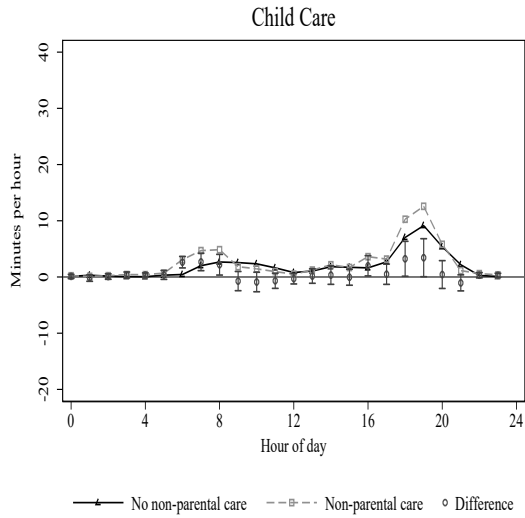
**A. Mothers, Weekday**



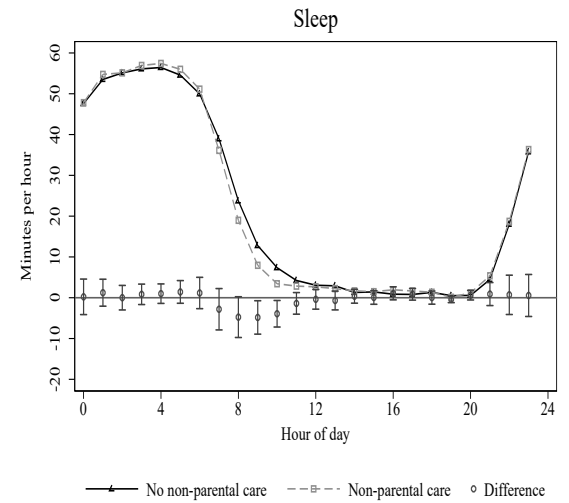
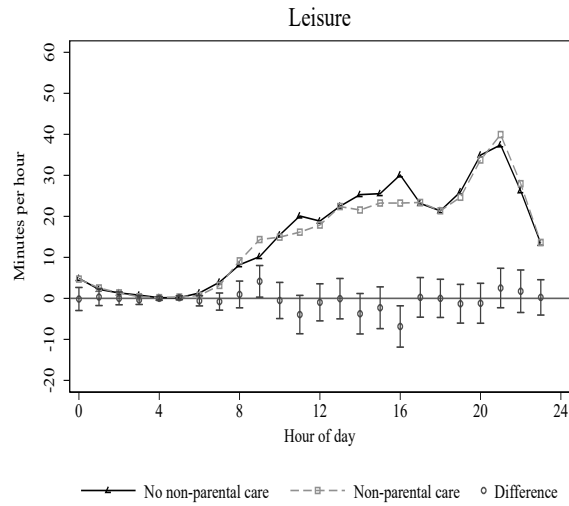
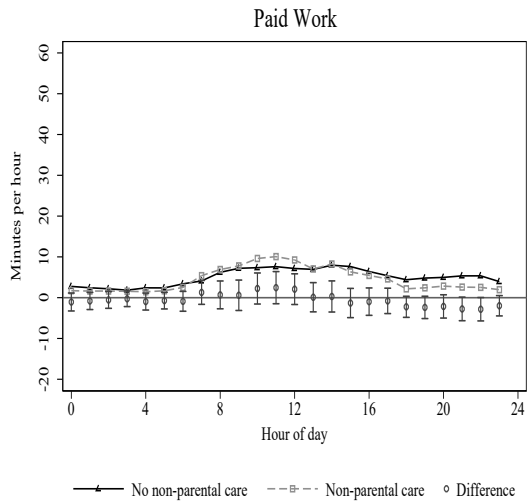
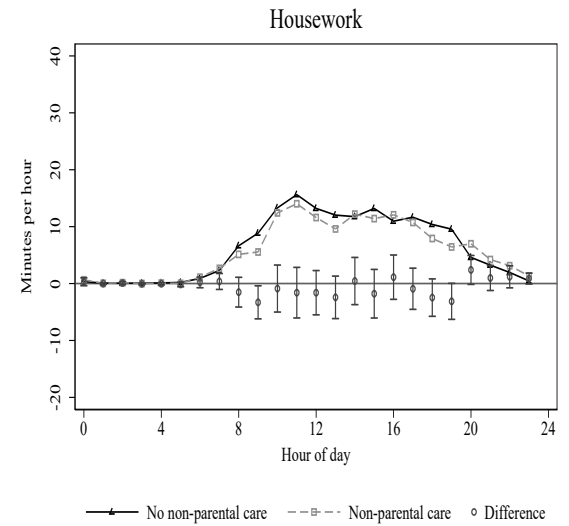
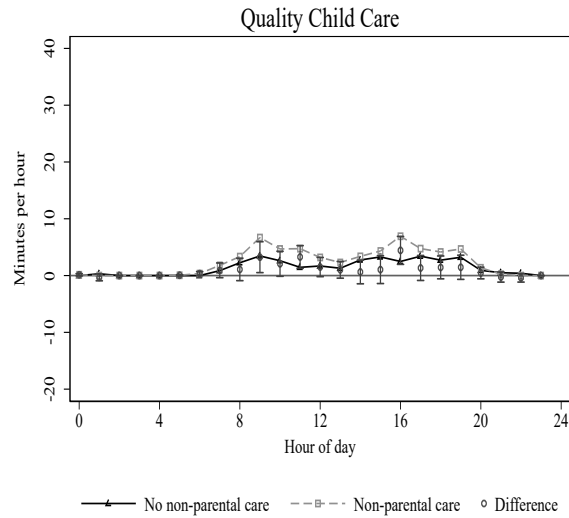
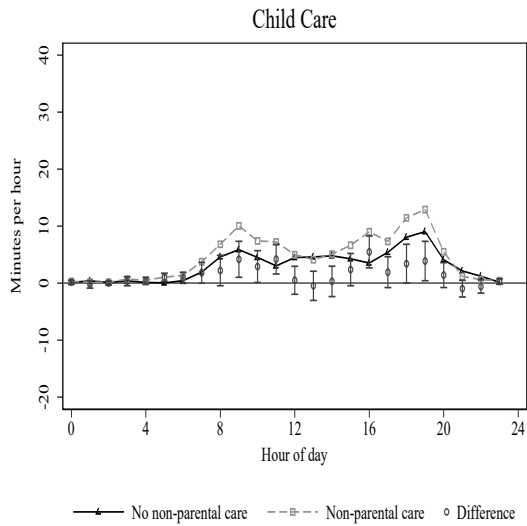
## B. Mothers, Weekend



### C. Fathers, Weekday

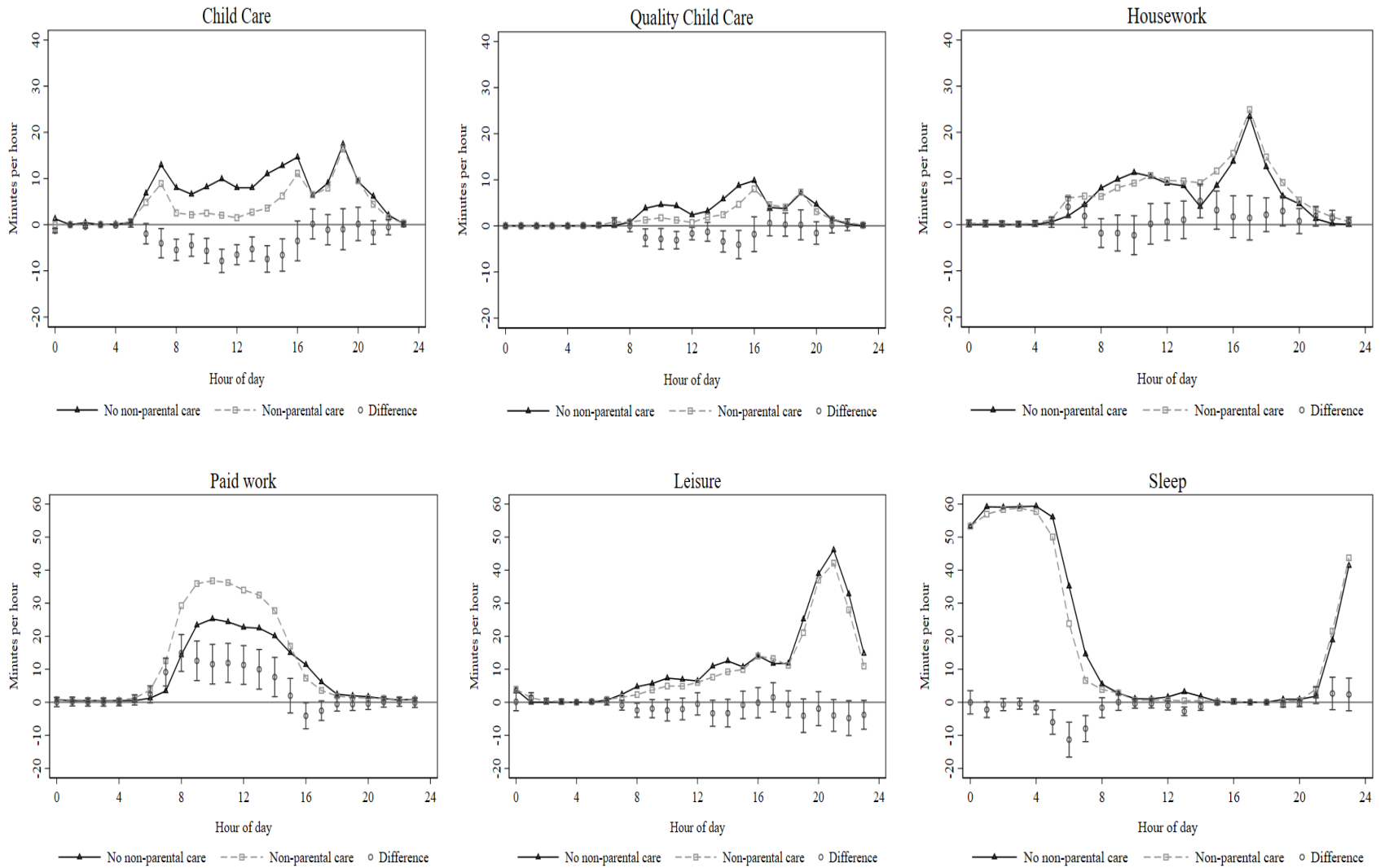


### D. Fathers, Weekend

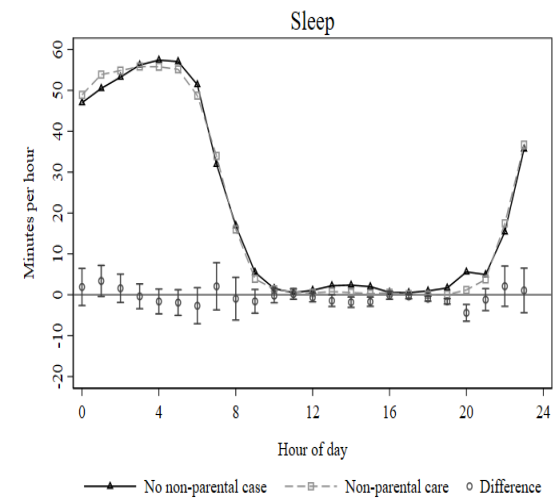
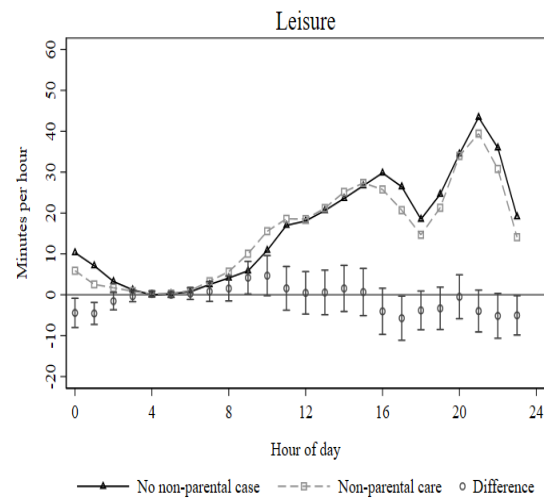
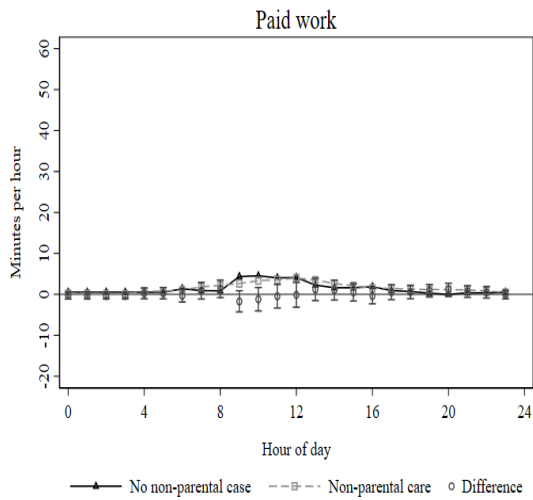
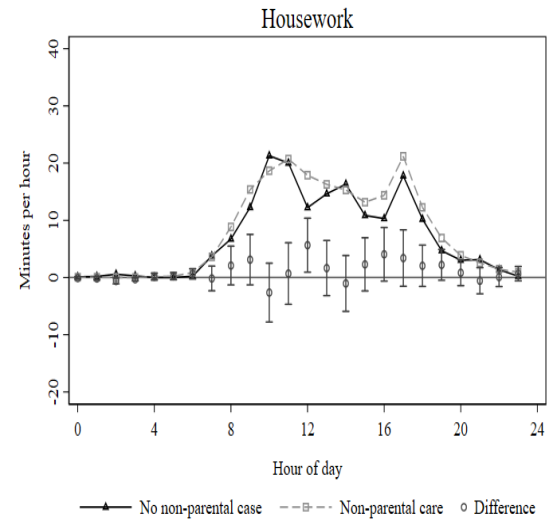
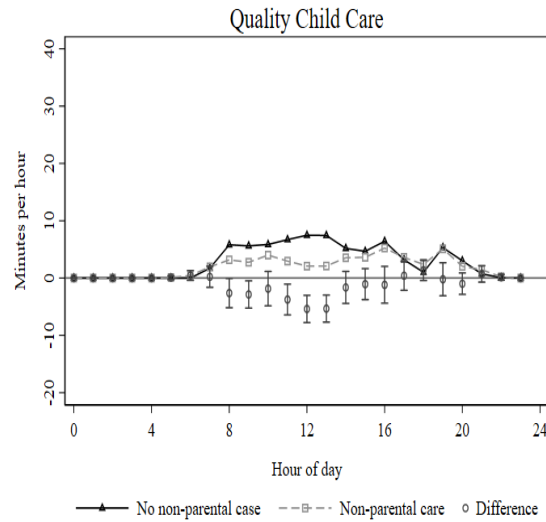
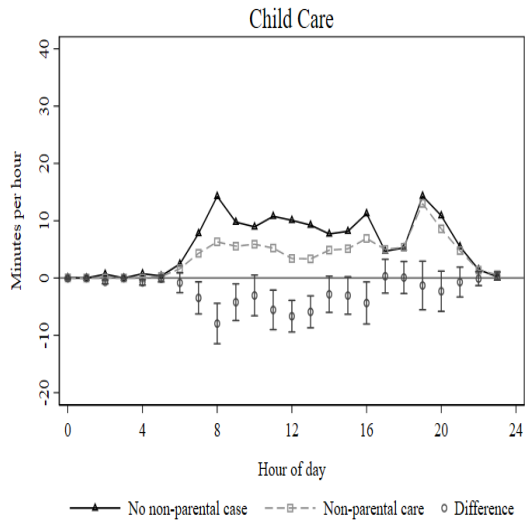


Appendix Figure 3: Hourly Time-Use, Denmark

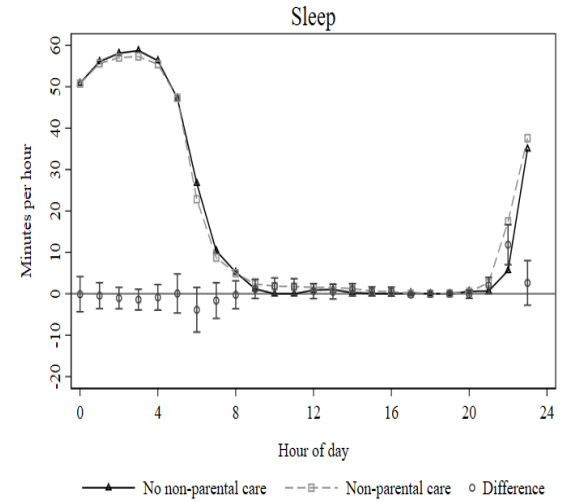
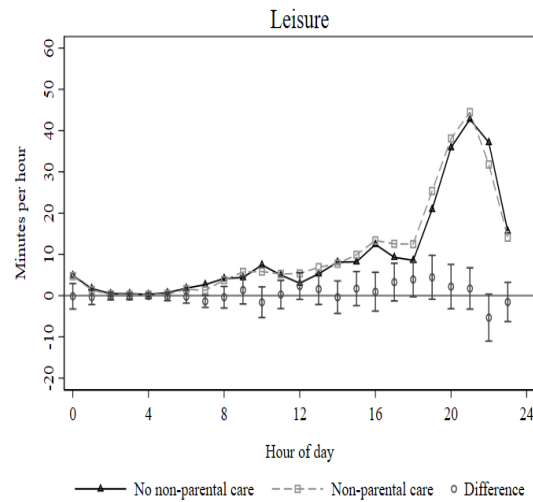
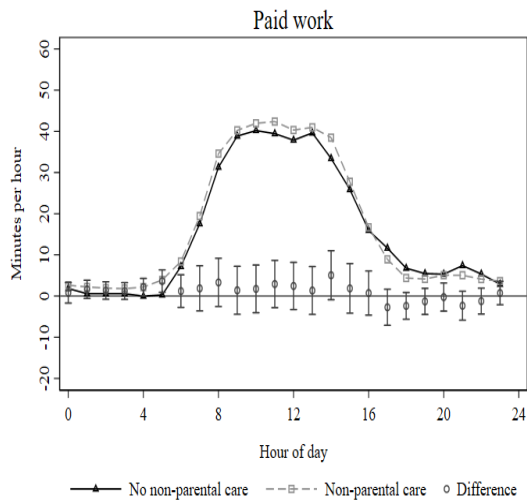
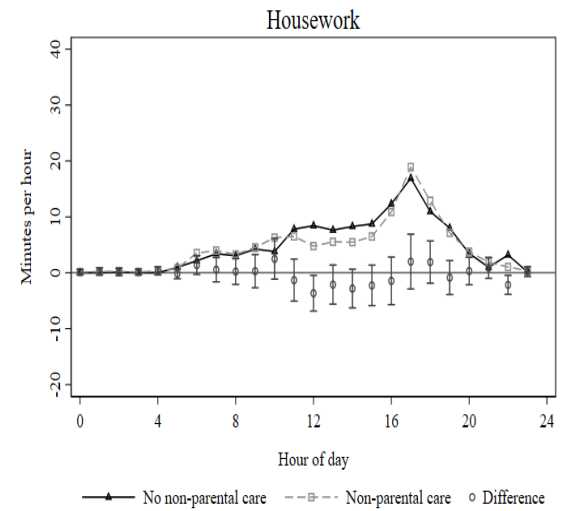
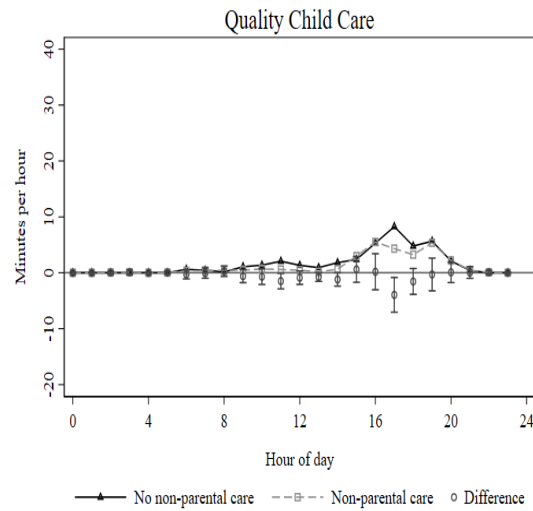
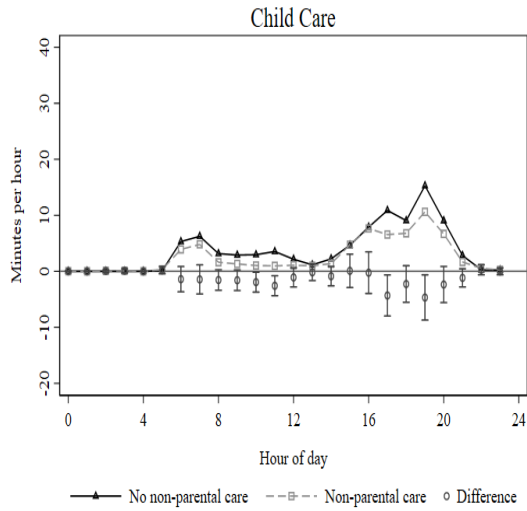
**A. Mothers, Weekday**



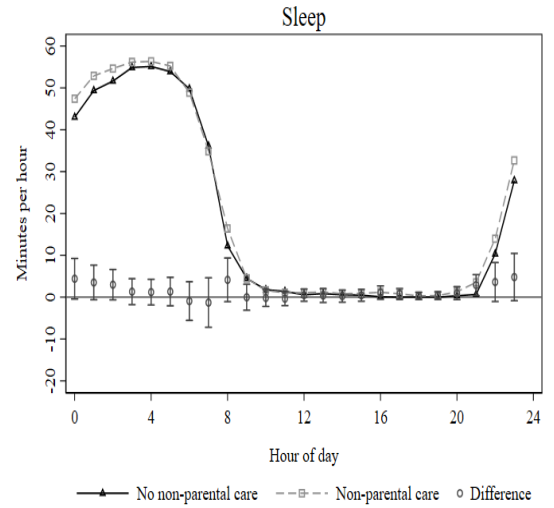
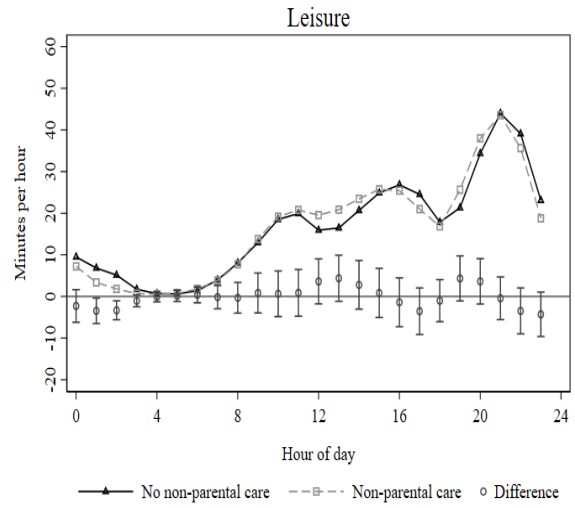
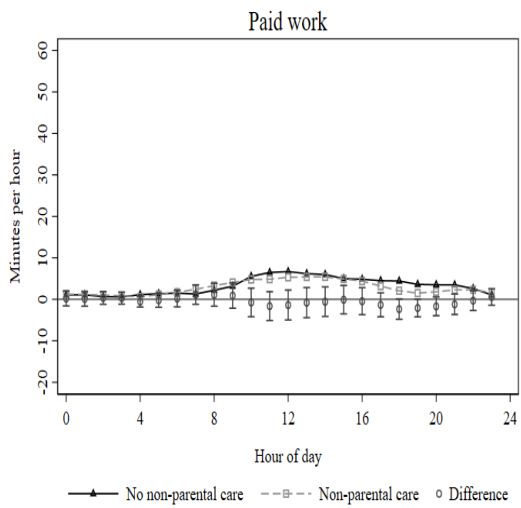
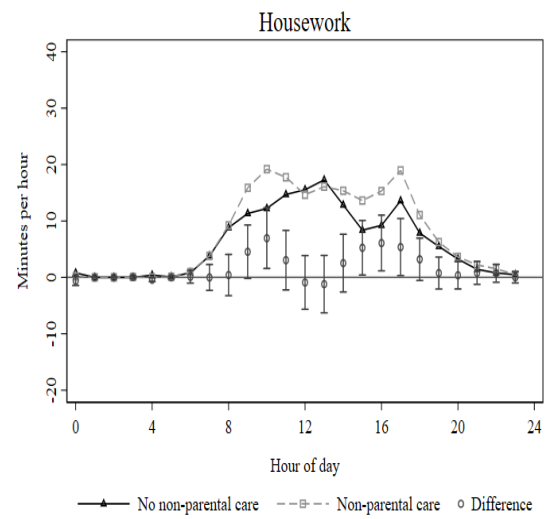
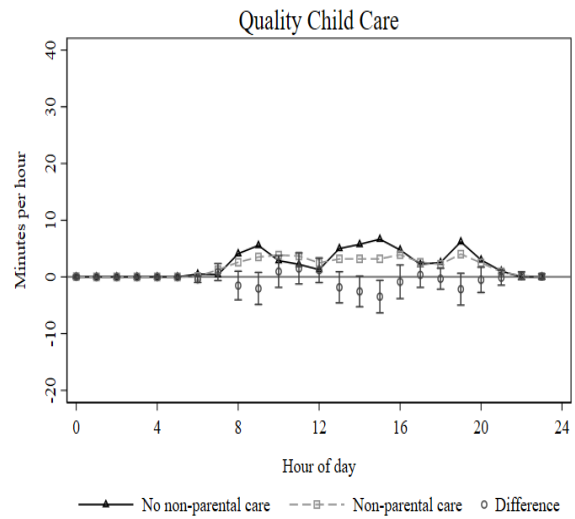
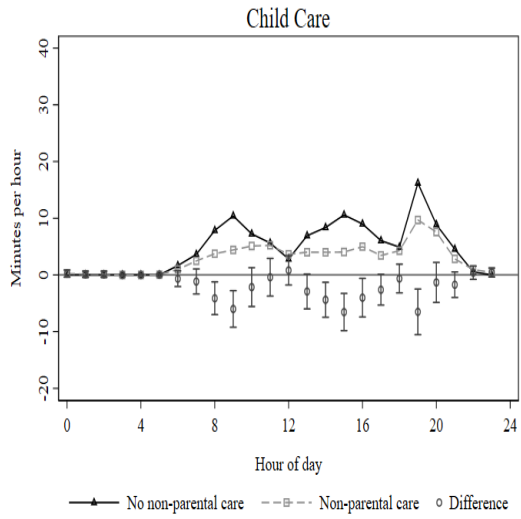
## B. Mothers, Weekend



### C. Fathers, Weekday



## D. Fathers, Weekend



Appendix Table A: Explanatory Variables

	<b>Korea</b>		<b>United Kingdom*</b>		<b>Denmark</b>	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Cohabiting	0.000		0.252	0.435	0.224	0.417
Mother's Age	37.043	5.019	36.033	6.790	36.011	5.492
Father's Age	39.256	5.204	38.603	7.980	38.493	6.204
Mother's Education (a)						
Degree Holder	0.082	0.275	0.391	0.488	0.208	0.406
Higher Education	0.405	0.491	0.170	0.376	0.218	0.413
A Level or Similar	0.301	0.459	0.221	0.415	0.414	0.493
High School Graduate	0.212	0.409	0.170	0.376	0.160	0.367
Other			0.047	0.212		
Father's Education (a)						
Degree Holder	0.103	0.304	0.285	0.452	0.152	0.360
Higher Education	0.437	0.496	0.150	0.357	0.390	0.488
A Level or Similar	0.268	0.443	0.167	0.373	0.311	0.463
High School Graduate	0.193	0.395	0.256	0.437	0.147	0.355
Other			0.143	0.350		
Outside Capital City	0.170	0.376	0.897	0.304	0.718	0.451
No Preschool Age Children	0.277	0.448	0.657	0.475	0.712	0.453
# Preschool Age Children	0.971	0.744	0.840	0.724	1.080	0.780
# of Other Children < Age 10	0.554	0.617	0.788	0.730	0.626	0.692
# Children Age 10-18	0.460	0.929	0.440	0.718	0.460	0.727
Adult Age 65+ Present in Household	0.041	0.199	0.017	0.131	0.000	
# of Observations	1315		575		748	

\* The UK figures are unweighted as the weights provided are person not couple specific.

Appendix Table B1: Korea  
Mothers

	Employed, survey	Employed, time-diary	Hours worked, survey	Hours worked, time- diary	Total Childcare Weekday	Total Childcare Weekend	Quality Childcare Weekday	Quality Childcare Weekend
Mother's Age	0.0018 (0.0038)	0.0047 (0.0031)	0.2180 (0.1819)	-0.0089 (0.0228)	-0.0300 (0.0122)	-0.0159 (0.0166)	-0.0171 (0.0063)	0.0032 (0.0087)
Father's Age	-0.0026 (0.0038)	-0.0025 (0.0030)	-0.2449 (0.1780)	-0.0399 (0.0221)	-0.0272 (0.0119)	-0.0105 (0.0160)	0.0071 (0.0061)	0.0049 (0.0084)
Mother's Education								
Higher Education	0.0274 (0.0368)	0.0057 (0.0296)	-1.8438 (1.7596)	-0.0591 (0.2119)	0.0150 (0.1169)	0.0687 (0.1538)	0.0535 (0.0603)	0.0654 (0.0811)
A Level or Similar	0.0496 (0.0390)	0.0123 (0.0314)	-2.0397 (1.8685)	-0.0115 (0.2268)	0.0530 (0.1239)	0.1059 (0.1639)	0.2101 (0.0639)	0.0272 (0.0864)
High School Graduate	0.1414 (0.0563)	0.0765 (0.0452)	-2.5024 (2.5184)	0.1870 (0.3080)	0.0470 (0.1787)	0.3326 (0.2273)	0.1852 (0.0922)	0.0373 (0.1198)
Father's Education								
Higher Education	0.0047 (0.0388)	0.0194 (0.0312)	-0.3540 (1.7935)	-0.0454 (0.2168)	-0.1886 (0.1232)	-0.1386 (0.1646)	-0.0419 (0.0636)	-0.1490 (0.0868)
A Level or Similar	-0.0133 (0.0394)	-0.0175 (0.0317)	-2.6847 (1.8459)	-0.0278 (0.2253)	0.1019 (0.1251)	-0.3854 (0.1636)	-0.0218 (0.0645)	-0.2532 (0.0862)
High School Graduate	-0.0988 (0.0538)	-0.0724 (0.0432)	0.1337 (2.6176)	0.1104 (0.3220)	0.2136 (0.1706)	-0.3869 (0.2191)	0.0697 (0.0880)	-0.2496 (0.1155)
Lives Outside Capital City	0.0084 (0.0333)	-0.0120 (0.0268)	0.5936 (1.4949)	-0.0263 (0.1846)	0.0719 (0.1057)	0.1510 (0.1474)	-0.1500 (0.0545)	-0.0743 (0.0777)

No Preschool Aged Children	-0.0100 (0.0507)	-0.0129 (0.0407)	-2.9386 (2.3198)	-0.4492 (0.2860)	-0.1228 (0.1608)	0.1665 (0.2049)	-0.0474 (0.0830)	0.0098 (0.1080)
# Preschool age Children	-0.0110 (0.0292)	-0.0314 (0.0234)	-4.4679 (1.4353)	-0.4182 (0.1822)	0.7446 (0.0926)	0.7145 (0.1188)	0.0860 (0.0478)	0.0320 (0.0626)
# of Other Children less than age 10	0.0479 (0.0268)	0.0400 (0.0215)	-1.9300 (1.2396)	-0.1155 (0.1517)	-0.0388 (0.0851)	-0.3757 (0.1108)	-0.0102 (0.0439)	-0.1590 (0.0584)
# Unmarried Children	-0.0094 (0.0159)	-0.0198 (0.0128)	0.1405 (0.7384)	0.1981 (0.0900)	-0.0516 (0.0505)	-0.1397 (0.0736)	-0.1303 (0.0260)	-0.1660 (0.0388)
Adult Age 65+ Present in Household	0.0971 (0.0634)	0.0523 (0.0510)	7.4903 (2.5530)	0.9912 (0.3170)	-0.3684 (0.2012)	-0.4230 (0.2746)	-0.1530 (0.1038)	-0.0802 (0.1447)
Constant	0.2626 (0.1300)	0.1414 (0.1044)	41.5354 (6.1662)	7.7706 (0.7581)	5.2717 (0.4124)	3.4772 (0.5334)	1.4358 (0.2128)	0.7772 (0.2811)
# of Observations	1315	1982	646	849	1982	1237	1982	1237

Standard errors are reported in parentheses below coefficients.

Appendix Table B2: Korea  
Fathers

	Employed, survey	Employed, time-diary	Hours worked, survey	Hours worked, time- diary	Total Childcare Weekday	Total Childcare Weekend	Quality Childcare Weekday	Quality Childcare Weekend
Mother's Age	-0.0001 (0.0014)	-0.0002 (0.0017)	-0.0352 (0.0970)	-0.0026 (0.0143)	-0.0077 (0.0062)	-0.0012 (0.0127)	-0.0029 (0.0034)	0.0123 (0.0083)
Father's Age	0.0006 (0.0014)	0.0015 (0.0018)	0.0865 (0.0988)	0.0178 (0.0146)	-0.0165 (0.0063)	-0.0265 (0.0131)	-0.0024 (0.0035)	-0.0122 (0.0086)
Mother's Education								
Higher Education	0.0053 (0.0141)	-0.0083 (0.0177)	-2.7514 (1.0060)	-0.0903 (0.1497)	-0.0860 (0.0639)	0.1452 (0.1300)	-0.0236 (0.0350)	0.0848 (0.0852)
A Level or Similar	0.0004 (0.0144)	-0.0180 (0.0180)	-4.2211 (1.0270)	-0.1075 (0.1529)	-0.0256 (0.0649)	0.5031 (0.1292)	-0.0254 (0.0356)	0.2838 (0.0846)
High School Graduate	-0.0032 (0.0196)	-0.0066 (0.0245)	-4.4320 (1.4001)	-0.0467 (0.2090)	0.0191 (0.0885)	0.4113 (0.1731)	0.0862 (0.0485)	0.3210 (0.1134)
Father's Education								
Higher Education	-0.0126 (0.0134)	-0.0159 (0.0168)	-0.5022 (0.9539)	-0.3562 (0.1421)	0.1651 (0.0606)	-0.0349 (0.1215)	0.0765 (0.0332)	0.0044 (0.0796)
A Level or Similar	0.0123 (0.0142)	0.0003 (0.0178)	-0.8770 (1.0120)	-0.2034 (0.1509)	0.1332 (0.0642)	0.0603 (0.1295)	0.0913 (0.0352)	0.0560 (0.0848)
High School Graduate	0.0056 (0.0205)	-0.0290 (0.0257)	-2.0548 (1.4646)	-0.2304 (0.2201)	0.3786 (0.0927)	0.5125 (0.1796)	0.1668 (0.0508)	0.1348 (0.1176)
Lives Outside Capital City	0.0271 (0.0121)	0.0141 (0.0152)	-1.8168 (0.8542)	-0.3650 (0.1276)	-0.0756 (0.0548)	0.1044 (0.1164)	-0.0282 (0.0301)	0.0050 (0.0763)

No Preschool Aged Children	0.0337 (0.0185)	0.0304 (0.0231)	1.1788 (1.3092)	0.3281 (0.1950)	-0.0979 (0.0834)	0.3197 (0.1619)	-0.1199 (0.0457)	-0.1145 (0.1060)
# Preschool age Children	0.0186 (0.0106)	0.0067 (0.0133)	0.4005 (0.7543)	0.1802 (0.1134)	0.1652 (0.0480)	0.5981 (0.0939)	0.0269 (0.0263)	0.1003 (0.0615)
# of Other Children less than age 10	-0.0019 (0.0098)	-0.0077 (0.0122)	-0.5661 (0.6970)	-0.1481 (0.1038)	-0.0152 (0.0441)	-0.1438 (0.0875)	0.0207 (0.0242)	-0.0498 (0.0573)
# Unmarried Children	0.0057 (0.0058)	0.0080 (0.0073)	-0.8004 (0.4092)	-0.0978 (0.0605)	-0.0301 (0.0262)	-0.1981 (0.0581)	-0.0290 (0.0144)	-0.1510 (0.0381)
Adult Age 65+ Present in Household	0.0269 (0.0231)	0.0624 (0.0290)	0.0708 (1.6202)	-0.0832 (0.2369)	-0.0828 (0.1044)	-0.2401 (0.2170)	0.0213 (0.0572)	-0.1764 (0.1421)
Constant	0.9154 (0.0473)	0.8826 (0.0593)	51.1416 (3.3699)	7.4076 (0.5047)	1.3518 (0.2139)	1.6643 (0.4214)	0.4313 (0.1173)	0.4960 (0.2760)
# of Observations	1315	1982	1279	1858	1982	1237	1982	1237

Standard errors are reported in parentheses below coefficients.

Appendix Table B3: UK  
Mothers

	Employed, survey	Employed, time-diary	Hours worked, survey	Hours worked, time- diary	Total Childcare Weekday	Total Childcare Weekend	Quality Childcare Weekday	Quality Childcare Weekend
Cohabiting	0.0107 (0.0438)	0.0970 (0.0493)	2.3639 (1.9446)	-0.4636 (0.4083)	-0.1200 (0.1819)	-0.2555 (0.1766)	0.0448 (0.0875)	0.0549 (0.0991)
Mother's Age	0.0070 (0.0046)	0.0055 (0.0051)	0.8245 (0.2119)	-0.0594 (0.0445)	-0.0029 (0.0188)	0.0177 (0.0183)	0.0062 (0.0090)	0.0221 (0.0103)
Father's Age	-0.0057 (0.0038)	-0.0038 (0.0043)	-0.2391 (0.1834)	-0.0136 (0.0392)	-0.0044 (0.0159)	-0.0286 (0.0155)	-0.0035 (0.0076)	-0.0198 (0.0087)
Mother's Education								
Higher Education	0.0304 (0.0562)	0.0160 (0.0632)	1.8473 (2.2952)	-0.3610 (0.5145)	-0.1072 (0.2324)	-0.4683 (0.2216)	0.0648 (0.1117)	-0.2894 (0.1243)
A Level or Similar	-0.0526 (0.0548)	-0.0723 (0.0617)	1.5738 (2.3831)	-0.4525 (0.5187)	-0.2101 (0.2273)	-0.5556 (0.2216)	-0.0933 (0.1093)	-0.2450 (0.1243)
High School Graduate	-0.1869 (0.0616)	-0.0985 (0.0693)	-0.0653 (2.8874)	-0.7148 (0.6266)	-0.3654 (0.2554)	-0.3587 (0.2474)	-0.1258 (0.1228)	-0.3589 (0.1388)
Other	-0.4218 (0.1072)	-0.2738 (0.1207)	12.6770 (12.3997)	2.7376 (2.1039)	-0.2372 (0.4445)	-0.3680 (0.4370)	-0.0564 (0.2137)	-0.5045 (0.2451)

Father's Education								
Higher Education	0.0908 (0.0607)	0.0132 (0.0684)	-4.0681 (2.5564)	-0.8517 (0.5717)	-0.0387 (0.2519)	0.1343 (0.2393)	-0.0947 (0.1211)	0.1384 (0.1343)
A Level or Similar	0.0285 (0.0611)	0.0384 (0.0687)	-1.3285 (2.6470)	-0.3464 (0.5678)	-0.3761 (0.2534)	0.0339 (0.2427)	-0.1468 (0.1218)	0.0668 (0.1361)
High School Graduate	0.0539 (0.0577)	0.0438 (0.0649)	-2.3940 (2.4644)	-0.5353 (0.5394)	0.0180 (0.2390)	0.2563 (0.2271)	0.1004 (0.1149)	-0.0095 (0.1274)
Other	-0.0678 (0.0625)	-0.1105 (0.0703)	-6.0820 (2.8676)	-1.3263 (0.6560)	0.1245 (0.2591)	0.0848 (0.2576)	-0.0332 (0.1246)	-0.0647 (0.1445)
Lives Outside Capital City	0.1521 (0.0544)	0.0866 (0.0613)	0.8619 (2.6270)	-0.1652 (0.5597)	-0.1132 (0.2260)	0.4418 (0.2229)	-0.1126 (0.1087)	0.1732 (0.1251)
No Preschool Aged Children	0.1775 (0.0816)	0.0752 (0.0919)	4.8934 (3.7834)	-1.6968 (0.8069)	0.1830 (0.3380)	-0.3703 (0.3257)	-0.2662 (0.1625)	-0.1467 (0.1827)
# Preschool age Children	-0.0970 (0.0488)	-0.0794 (0.0549)	1.4913 (2.4917)	-1.4766 (0.5466)	1.2683 (0.2015)	0.7847 (0.1938)	0.0504 (0.0969)	0.1918 (0.1087)
# of Other Children less than age 10	-0.0902 (0.0310)	-0.0648 (0.0349)	-4.3945 (1.6413)	-0.2854 (0.3660)	-0.2176 (0.1290)	-0.2389 (0.1245)	-0.0996 (0.0620)	-0.1107 (0.0699)
# Children age 10-18	-0.0273 (0.0290)	0.0015 (0.0326)	0.8777 (1.3748)	0.3754 (0.2866)	-0.1715 (0.1201)	-0.1622 (0.1175)	-0.1205 (0.0577)	-0.0867 (0.0659)
Adult Age 65+ Present in Household	-0.0276 (0.1491)	-0.0719 (0.1678)	-4.2032 (7.6062)	-2.2516 (1.7833)	0.7140 (0.6097)	0.9941 (0.6616)	-0.1908 (0.2932)	0.3695 (0.3711)
Constant	0.5504 (0.1595)	0.3612 (0.1795)	6.6287 (7.3369)	11.7098 (1.6174)	2.1594 (0.6616)	2.1615 (0.6449)	0.9303 (0.3181)	0.5948 (0.3618)
# of Observations	546	546	362	248	546	521	546	521

Standard errors are reported in parentheses below coefficients.

Appendix Table B4: UK  
Fathers

	Employed, survey	Employed, time-diary	Hours worked, survey	Hours worked, time- diary	Total Childcare Weekday	Total Childcare Weekend	Quality Childcare Weekday	Quality Childcare Weekend
Cohabiting	-0.0907 (0.0274)	-0.0242 (0.0455)	0.9606 (1.5221)	-0.6108 (0.2835)	0.0881 (0.1186)	-0.3598 (0.1787)	0.0313 (0.0667)	-0.1318 (0.1200)
Mother's Age	0.0099 (0.0030)	0.0144 (0.0050)	0.0755 (0.1696)	-0.0255 (0.0324)	-0.0153 (0.0130)	0.0399 (0.0198)	0.0039 (0.0073)	0.0273 (0.0133)
Father's Age	-0.0085 (0.0026)	-0.0070 (0.0043)	0.0397 (0.1516)	-0.0395 (0.0286)	0.0100 (0.0111)	-0.0250 (0.0168)	-0.0008 (0.0063)	-0.0207 (0.0112)
Mother's Education								
Higher Education	0.0002 (0.0357)	0.0245 (0.0594)	-2.0010 (1.9207)	-0.3842 (0.3662)	-0.3108 (0.1546)	-0.4836 (0.2314)	-0.0539 (0.0870)	-0.3753 (0.1554)
A Level or Similar	0.0112 (0.0355)	0.0401 (0.0591)	-1.9631 (1.9556)	0.1702 (0.3688)	-0.4499 (0.1537)	-0.0893 (0.2330)	-0.1629 (0.0865)	-0.1932 (0.1565)
High School Graduate	-0.0090 (0.0376)	-0.0141 (0.0624)	-1.4254 (2.0753)	0.8922 (0.4040)	-0.0680 (0.1645)	0.1999 (0.2444)	-0.0121 (0.0926)	-0.2156 (0.1641)
Other	-0.0330 (0.0682)	0.0016 (0.1133)	-1.1058 (3.9005)	-0.7734 (0.7239)	0.0374 (0.2907)	-0.4435 (0.4462)	0.0243 (0.1636)	-0.4134 (0.2996)

Father's Education								
Higher Education	0.0097 (0.0363)	-0.0091 (0.0603)	5.3228 (1.9708)	0.4913 (0.3816)	-0.0395 (0.1580)	-0.2203 (0.2342)	-0.1032 (0.0889)	-0.1529 (0.1573)
A Level or Similar	0.0123 (0.0368)	0.0180 (0.0612)	0.6959 (1.9983)	0.2454 (0.3843)	0.0427 (0.1605)	-0.4167 (0.2389)	-0.0243 (0.0904)	-0.0407 (0.1605)
High School Graduate	0.0305 (0.0352)	-0.0148 (0.0586)	2.8016 (1.9168)	1.1310 (0.3765)	-0.1464 (0.1523)	-0.5639 (0.2290)	-0.0723 (0.0857)	-0.0798 (0.1538)
Other	-0.0826 (0.0527)	-0.0058 (0.0877)	-1.1749 (3.1506)	0.5638 (0.5681)	-0.1867 (0.2266)	-0.6497 (0.3496)	0.0216 (0.1275)	-0.1984 (0.2348)
Lives Outside Capital City	-0.0400 (0.0341)	-0.0961 (0.0567)	4.1804 (1.8632)	0.9834 (0.3452)	0.4071 (0.1498)	0.1350 (0.2240)	0.1115 (0.0843)	-0.1789 (0.1504)
No Preschool Aged Children	0.1529 (0.0492)	0.1867 (0.0819)	-0.6637 (2.7054)	-0.3550 (0.5161)	-0.7914 (0.2139)	-0.7627 (0.3184)	-0.3927 (0.1204)	-0.5025 (0.2138)
# Preschool age Children	0.0211 (0.0291)	0.0617 (0.0484)	1.4214 (1.5907)	-0.4574 (0.2921)	-0.0421 (0.1256)	0.2442 (0.1875)	-0.0834 (0.0707)	0.0235 (0.1259)
# of Other Children less than age 10	-0.0522 (0.0190)	-0.0502 (0.0316)	2.5831 (1.0693)	-0.1516 (0.2121)	0.1153 (0.0827)	-0.0062 (0.1233)	0.0074 (0.0466)	-0.1550 (0.0828)
# Children age 10-18	-0.0477 (0.0181)	-0.0683 (0.0300)	-0.5948 (1.0442)	-0.1830 (0.1987)	0.0119 (0.0784)	-0.3225 (0.1170)	-0.0192 (0.0441)	-0.1431 (0.0786)
Adult Age 65+ Present in Household	-0.0829 (0.0782)	-0.1480 (0.1300)	-2.5644 (4.5233)	-0.9909 (0.9229)	0.1378 (0.3346)	-0.0516 (0.4990)	-0.0013 (0.1883)	-0.1608 (0.3351)
Constant	0.9161 (0.1014)	0.5413 (0.1685)	28.7606 (5.6060)	10.0270 (1.0462)	1.0847 (0.4417)	1.4728 (0.6511)	0.4271 (0.2486)	1.2568 (0.4373)
# of Observations	477	477	439	373	477	457	477	457

Standard errors are reported in parentheses below coefficients.

Appendix Table B5: Denmark  
Mothers

	Employed, survey	Employed, time-diary	Hours worked, survey	Hours worked, time- diary	Total Childcare Weekday	Total Childcare Weekend	Quality Childcare Weekday	Quality Childcare Weekend
Married	0.0179 (0.0330)	0.0021 (0.0469)	0.2092 (0.8075)	0.2571 (0.2554)	0.0613 (0.1603)	-0.2867 (0.1842)	-0.0560 (0.1127)	-0.2691 (0.1321)
Mother's Age	-0.0027 (0.0030)	0.0059 (0.0043)	0.0945 (0.0776)	0.0485 (0.0238)	-0.0044 (0.0147)	-0.0324 (0.0170)	-0.0006 (0.0103)	-0.0102 (0.0122)
Father's Age	0.0031 (0.0037)	-0.0013 (0.0052)	-0.2744 (0.0947)	-0.0861 (0.0284)	-0.0277 (0.0177)	-0.0399 (0.0203)	-0.0105 (0.0125)	-0.0127 (0.0145)
Mother's Education								
3-4 Years Higher Education	0.1784 (0.0408)	0.0229 (0.0579)	0.1938 (1.0721)	0.4578 (0.3170)	-0.0209 (0.1979)	-0.3478 (0.2279)	0.0841 (0.1392)	-0.4295 (0.1634)
1-2 Years Higher Education	0.1180 (0.0466)	-0.0067 (0.0662)	-0.1597 (1.2106)	0.1208 (0.3573)	0.0334 (0.2261)	-0.3820 (0.2614)	0.1045 (0.1590)	-0.3691 (0.1874)
No Higher Education	0.1718 (0.0505)	-0.0418 (0.0717)	0.7639 (1.2883)	0.3986 (0.3957)	0.1951 (0.2450)	-0.3795 (0.2827)	0.2558 (0.1723)	-0.5314 (0.2027)
Father's Education								
3-4 Years Higher Education	0.2593 (0.0441)	0.1923 (0.0627)	1.0877 (1.1969)	0.2929 (0.3645)	-0.1014 (0.2141)	-0.3109 (0.2444)	0.0570 (0.1505)	0.0251 (0.1752)
1-2 Years Higher Education	0.3070 (0.0441)	0.1904 (0.0627)	1.5016 (1.1994)	0.1957 (0.3614)	-0.2504 (0.2141)	-0.2945 (0.2437)	-0.0629 (0.1505)	-0.0105 (0.1747)
No Higher Education	0.3068 (0.0547)	0.2241 (0.0777)	5.1693 (1.4238)	0.3388 (0.4486)	-0.2995 (0.2655)	-0.3391 (0.3012)	-0.0023 (0.1867)	0.1895 (0.2159)

Inside Capital City	-0.0324 (0.0304)	-0.0167 (0.0431)	-1.2075 (0.7463)	0.0682 (0.2329)	0.0871 (0.1474)	0.4737 (0.1683)	0.0560 (0.1036)	0.2906 (0.1206)
No Preschool Aged Children	0.0409 (0.0405)	-0.0089 (0.0576)	-0.1261 (0.9709)	0.1206 (0.3043)	-0.0569 (0.1966)	-0.1990 (0.2266)	0.0287 (0.1382)	-0.1323 (0.1625)
# Preschool age Children	-0.0339 (0.0258)	-0.0627 (0.0366)	-0.7614 (0.6376)	-0.1144 (0.2088)	0.3318 (0.1252)	0.5337 (0.1434)	0.1168 (0.0880)	0.2658 (0.1028)
# of Other Children less than age 10	0.0354 (0.0242)	0.0036 (0.0344)	-0.2792 (0.5833)	-0.2376 (0.1850)	-0.0738 (0.1175)	0.1243 (0.1342)	-0.1181 (0.0826)	0.0585 (0.0962)
# Children age 10-18	-0.0233 (0.0212)	-0.0232 (0.0301)	0.7947 (0.5272)	0.5256 (0.1620)	-0.0346 (0.1030)	-0.1702 (0.1189)	0.0061 (0.0724)	-0.0789 (0.0853)
Constant	0.4383 (0.1178)	0.1843 (0.1673)	41.5449 (3.2126)	7.8589 (1.0214)	3.3873 (0.5716)	4.9178 (0.6515)	1.2286 (0.4019)	2.0596 (0.4671)
# of Observations	653	653	583	434	653	623	653	623

Standard errors are reported in parentheses below coefficients.

Appendix Table B6: Denmark  
Fathers

	Employed, survey	Employed, time-diary	Hours worked, survey	Hours worked, time- diary	Total Childcare Weekday	Total Childcare Weekend	Quality Childcare Weekday	Quality Childcare Weekend
Married	0.0562 (0.0238)	0.0860 (0.0419)	1.7476 (0.8627)	0.6016 (0.2802)	-0.3083 (0.1390)	-0.1067 (0.1763)	-0.0493 (0.0900)	-0.0315 (0.1400)
Mother's Age	0.0027 (0.0022)	0.0033 (0.0039)	0.0567 (0.0807)	0.0216 (0.0259)	-0.0189 (0.0131)	0.0151 (0.0165)	-0.0028 (0.0085)	0.0215 (0.0131)
Father's Age	-0.0072 (0.0026)	-0.0098 (0.0046)	-0.0775 (0.0991)	-0.0653 (0.0314)	0.0281 (0.0154)	-0.0247 (0.0194)	0.0170 (0.0100)	-0.0134 (0.0154)
Mother's Education								
3-4 Years Higher Education	0.2050 (0.0300)	0.0638 (0.0528)	1.1233 (1.1364)	0.2071 (0.3477)	0.1163 (0.1751)	0.4677 (0.2213)	-0.0151 (0.1134)	0.2319 (0.1757)
1-2 Years Higher Education	0.2352 (0.0342)	0.0528 (0.0601)	-0.3600 (1.2662)	0.2188 (0.3965)	0.0000 (0.1992)	0.9154 (0.2526)	-0.0394 (0.1289)	0.4858 (0.2005)
No Higher Education	0.2298 (0.0369)	0.0671 (0.0649)	1.2043 (1.3560)	0.5026 (0.4277)	0.0793 (0.2153)	0.4636 (0.2732)	0.0517 (0.1394)	0.1712 (0.2169)
Father's Education								
3-4 Years Higher Education	0.1018 (0.0313)	0.1706 (0.0551)	1.2892 (1.1532)	0.0422 (0.3750)	-0.2128 (0.1828)	-0.2366 (0.2323)	0.0620 (0.1183)	0.1729 (0.1844)
1-2 Years Higher Education	0.0803 (0.0314)	0.1282 (0.0553)	1.5550 (1.1474)	-0.3900 (0.3767)	-0.0749 (0.1833)	-0.2125 (0.2332)	0.0859 (0.1186)	0.1415 (0.1851)
No Higher Education	0.0736 (0.0388)	0.1057 (0.0682)	1.8944 (1.3920)	-0.3416 (0.4580)	0.1128 (0.2261)	0.1122 (0.2882)	0.2298 (0.1463)	0.4113 (0.2287)

Inside Capital City	-0.0390 (0.0216)	-0.0737 (0.0379)	-1.2910 (0.7778)	-0.3579 (0.2517)	0.0380 (0.1258)	0.0525 (0.1599)	-0.0211 (0.0815)	0.0620 (0.1269)
No Preschool Aged Children	-0.0614 (0.0296)	-0.0756 (0.0521)	0.9585 (1.0537)	-0.2835 (0.3449)	-0.3699 (0.1729)	-0.4630 (0.2194)	-0.3844 (0.1119)	-0.3643 (0.1741)
# Preschool age Children	-0.0107 (0.0187)	0.0205 (0.0329)	0.2483 (0.6669)	-0.0825 (0.2171)	0.1722 (0.1092)	0.2441 (0.1394)	-0.0632 (0.0707)	0.0303 (0.1107)
# of Other Children less than age 10	0.0037 (0.0173)	0.0076 (0.0305)	0.4172 (0.6140)	0.3048 (0.2018)	-0.1203 (0.1011)	-0.2746 (0.1280)	-0.0691 (0.0655)	-0.1602 (0.1016)
# Children age 10-18	0.0295 (0.0160)	0.0258 (0.0281)	1.2830 (0.5757)	0.0911 (0.1868)	-0.0906 (0.0933)	-0.2498 (0.1188)	-0.0067 (0.0604)	-0.1988 (0.0943)
Constant	0.7961 (0.0823)	0.7193 (0.1446)	38.9865 (3.2640)	8.7581 (1.0425)	1.3241 (0.4797)	1.7923 (0.6123)	0.2871 (0.3105)	0.2400 (0.4860)
# of Observations	623	623	594	500	623	607	623	607

Standard errors are reported in parentheses below coefficients.