



'Undoing gender' or selection effects?: fathers' uptake of leave and involvement in housework and childcare in South Korea

Youngcho Lee

To cite this article: Youngcho Lee (2023): 'Undoing gender' or selection effects?: fathers' uptake of leave and involvement in housework and childcare in South Korea, *Journal of Family Studies*, DOI: [10.1080/13229400.2023.2200747](https://doi.org/10.1080/13229400.2023.2200747)

To link to this article: <https://doi.org/10.1080/13229400.2023.2200747>



© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 21 Apr 2023.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

'Undoing gender' or selection effects?: fathers' uptake of leave and involvement in housework and childcare in South Korea

Youngcho Lee 

Department of Social Policy, London School of Economics and Political Science, London, United Kingdom

ABSTRACT

A number of studies have documented a positive (causal) relationship between fathers' uptake of parental leave and a more equitable division of unpaid labour in Western contexts, primarily where men contribute to a fair share of unpaid work and fathers' uptake of leave is common. South Korea offers an apt and contrasting setting to explore this relationship, with its highly gendered division of unpaid labour and low use of fathers' leave, despite recent increases. This study finds that fathers who have taken (long) leave contribute more to housework as well as both developmental and routine childcare than fathers with neither leave plan nor experience. For housework and developmental childcare, this difference is mostly explained by already involved fathers self-selecting into leave. For routine childcare, there is limited evidence to suggest that very long leave of one year or longer could potentially make fathers more involved. In short, the gender equalising impact of fathers' uptake of parental leave in Korea appears to be restricted mainly to long leave and routine childcare, if there exists any significant effect at all. Overall, this paper suggests that the gender equalising effect of fathers' leave may vary depending on the stage of the gender revolution.

ARTICLE HISTORY

Received 3 April 2022



Accepted 4 April 2023

KEYWORDS

Fathers' leave; unpaid labour; undoing gender; selection effect; South Korea

1. Introduction

While the Nordic countries have been the pioneers of legislation supporting parental leave for fathers, a range of other countries around the world have followed suit in the past couple of decades by introducing policy incentives to encourage fathers to take leave. The expansion of leave policies for fathers and the increase in fathers taking leave has led to burgeoning research on factors associated with fathers' uptake and leave as well as the impact of fathers taking leave, particularly on the gendered division of unpaid labour. Policymakers and researchers have especially been interested in whether encouraging fathers' uptake of leave can equalise the gendered division of labour between couples by making leave-taking fathers more involved in unpaid

CONTACT Youngcho Lee  y.lee28@lse.ac.uk  Department of Social Policy, London School of Economics and Political Science, London, United Kingdom, Houghton St, London WC2A 2AE, UK

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

labour, or whether it is fathers who already engage in a relatively egalitarian division of unpaid labour that are more likely to choose to take leave. While extant studies find evidence suggestive of a gender equalising – or ‘undoing gender’ – effect of fathers’ leave, this question has primarily been tested in Western contexts so far. Moreover, studies that specifically assess the causal impact of fathers’ uptake of leave have been limited to a few countries where the gendered division of labour is relatively balanced and where a considerable proportion of fathers take some leave – in other words, in countries that have made substantial progress in the second half of the gender revolution. I extend the existing literature to an understudied East Asian country, South Korea, to study whether fathers’ taking leave can equalise the gendered division of unpaid labour in a country where the second half of the gender revolution is in inchoate stages. Understanding gender as something that could be undone is useful in framing whether and how fathers’ uptake of leave could contribute to the reduction of gender differences while the gender revolution framework is useful in situating Korea in the broader international literature of fathers’ leave and highlighting variations in men’s roles in unpaid work across national contexts. Together, these conceptual frameworks help frame the question of to what differences between fathers by leave-taking status could be attributed to undoing of gender and selection effects.

This study utilises an original web survey data of fathers with young children. By distinguishing fathers by whether they have taken leave and by whether they have plans to take leave or not, I divide fathers into four categories: fathers who are currently on leave, fathers who have taken leave in the past, fathers who plan to take their first leave shortly, and fathers who have not taken leave and do not plan to do so. This analytic strategy allows me to directly compare fathers who have not taken leave by whether they have plans – and hence predispositions – to take leave or not. It also allows me to directly compare fathers who self-select into leave by whether their leave is ongoing, finished, or expected. The contribution of this study lies not only in the exploration of an under-examined context but also its methodological attempt to account – to an extent – for the selectiveness of fathers choosing to take leave.

In the following sections, I will first review the existing theoretical and empirical literature on the relationship between fathers’ uptake of leave and involvement in unpaid labour. Next, I will situate the Korean context to hypothesise how Korea offers an apt and novel setting to extend the study of this relationship. I will then present the data and methods, followed by the findings. I will conclude with some discussions and limitations of the study.

2. Fathers’ uptake of leave and its impact on involvement in their unpaid labour: undoing gender?

West and Zimmerman posit in their landmark piece ‘Doing Gender’ (1987) that gender is not something we are, but something we do. Taking Berk’s study of household labour (1985) as an example of a gendered locus, they highlight, ‘what is produced and reproduced is not merely the activity and artifact of domestic life, but the material embodiment of wifely and husbandly roles, and derivatively, of womanly and manly conduct’ (p. 144). Those who build on West and Zimmerman’s social constructionist approach to gender have further emphasised that it is possible to deconstruct and reconstruct gender in

different and more egalitarian forms (Deutsch, 2007; Deutsch & Gaunt, 2020; Risman, 2009). Put simply, if gender is done, it can be also undone. Here, ‘doing gender’ is understood as social interactions reproducing gender difference and ‘undoing gender’ as those reducing gender difference, as Deutsch (2007) proposes. Policies that incentivise fathers’ uptake of parental leave, then, is a good example of state intervention that could bring about a reduction in gender differences and contribute to greater gender equality in the division of unpaid work by inviting men into the domestic sphere and away from their careers, albeit temporarily (Brandth & Kvande, 2018). The idea is that this will allow fathers an opportunity to extensively bond with their children and encourage their increased involvement in domestic activities. By allowing fathers to transform the way they ‘do gender’ as fathers/husbands, leave policies have the potential to contest the male breadwinner/female caregiver dichotomy (Fraser, 1994).

Empirical studies have documented the association between fathers’ uptake of leave and their involvement in unpaid labour in a wide range of Western contexts. A group of studies report a positive link between fathers taking some amount of leave and greater involvement in childcare in countries such as Sweden (Almqvist & Duvander, 2014; Evertsson et al., 2018; Haas & Hwang, 2008), Iceland (Arnalds et al., 2013), the UK (Tanaka & Waldfogel, 2007), the US (Nepomnyaschy & Waldfogel, 2007; Petts & Knoester, 2018; Pragg & Knoester, 2017), Spain (Fernández-Cornejo et al., 2016), Australia only in the weekends (Hosking et al., 2010), France only for first-order births (Pailhé et al., 2018), and a cross-country research of Australia, Denmark, the UK, and the US (Huerta et al., 2014). While fathers’ uptake of leave and their contribution to housework is much less documented, Almqvist and Duvander’s work (2014) on Sweden finds a moderately positive association, less strong than for childcare. These studies suggest a positive correlation between fathers taking (long) leave and being more involved particularly in childcare, although they are cautious not to make a causal claim due to the possibility of bias from the selection of more involved fathers into leave, perhaps one of the most important methodological issues to account for in studying the impact of fathers’ uptake of leave.

On the other hand, the positive association found in the relationship between fathers’ (long) leave and their greater involvement in unpaid labour is further supported by several studies which have tested for a *causal* relationship with the use of quasi-natural experiments. These studies typically compare fathers’ involvement in unpaid labour before and after a key reform in fathers’ leave policy and find that fathers’ leave explains some form of increased involvement for childcare and/or housework in a few Western settings such as Norway, Canada (Quebec), and Germany.

In Norway, Kotsadam and Finseraas (2011) find that after the implementation of the four weeks of reserved leave for fathers, respondents reported lower conflicts over the household division of labour and were more likely to divide laundry, formerly the most unequally shared domestic chore, equally. In Quebec, Patnaik (2019) uses benefits claims data to find that the introduction of a five-week reserved paternity leave policy resulted in eligible fathers increasing their time in housework, but not childcare. In another study of Quebec based on two cross-sectional waves of time diary data, Wray (2020) finds an increase of 2.2 hours of fathers’ weekly direct solo parenting time after fathers’ leave reforms. In the German context, Schober (2014) finds the introduction of two paid daddy months in 2007 to be associated with increased childcare time of

fathers up to thirty months after the birth of the child, but no significant changes in time spent on housework. Bünning (2015) finds an increase in involvement in childcare even after short and joint leave, but longer leave of more than two months were necessary for German fathers to increase their involvement in housework. On the other hand, in Tamm's study (2019), a significant and lasting increase in German fathers' weekday childcare time, as well as time spent on housework and other household errands, is observed, even after a short leave. Finally, while Kluge and Tamm (2013) find a lack of evidence to indicate a positive causal impact of fathers' uptake of leave on their increased *relative* domestic involvement in Germany, they do not rule out the possibility that there could have been an increase in fathers' *absolute* involvement. They note that 'the insignificance of the difference between treatment and control group might ... result from a situation where fathers and mothers *both* proportionally increase the time with the child' (p. 1003, emphasis mine). Thus, although there exist variations by the country context, data and methods, the length of leave, and depending on the measure of unpaid labour, these studies generally point to some causal evidence that fathers' uptake of leave increases their involvement in unpaid labour. In particular, these findings suggest that it is not (only) the selection of already-involved fathers into leave, but that fathers taking leave has an independent and significant impact on their involvement in unpaid labour. These studies thus go to show that policies incentivising fathers' uptake to leave indeed do have the potential to transform the way fathers 'do gender' at home.

3. The unfinished – and varying – gender revolution across the world

According to Goldscheider, Bernhardt, and Lappegård's two-stage gender revolution framework (2015), if the first half of the gender revolution entails increases in women's labour force participation, the second half of the gender revolution entails increases in men's unpaid labour within the home. The empirical literature on fathers' uptake of leave, then, seems to be indicative of the second half of the gender revolution, with more fathers increasingly taking leave and subsequently becoming more involved in unpaid labour across key Western countries (Engeman & Burman, 2022). However, as Kan and Hertog (2017) point out in their study of the gendered division of unpaid labour in East Asia, 'the transition to the second stage of the gender revolution is a recent phenomenon, with the pace of transition varying between societies' (p. 561). This is also evident in Figure 1 which illustrates that among selected OECD countries, the two East Asian countries, Japan and Korea, stand out from the remaining Western countries when it comes to the gendered division of unpaid labour (OECD, 2021b). While men of various Western countries as well as the OECD average contribute at least one-third of the total unpaid labour, Japanese and Korean men do less than half of what their male counterparts in the other countries do and less than a quarter of what their female counterparts in their respective countries do. This striking difference suggests in a nutshell that these two East Asian countries are in a different stage of the gender revolution than the other Western countries.

Similarly, fathers' uptake of leave is relatively common in the settings which are most often studied in the quasi-experimental literature on fathers' uptake of leave. It is difficult to directly compare leave uptake rate of fathers across countries due to variations in policy design and a lack of data standardisation (O'Brien, 2013). In the absence of a

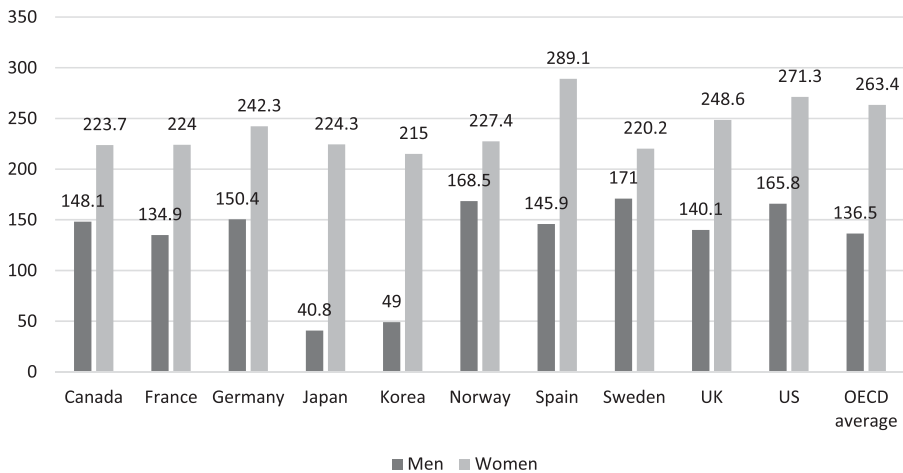


Figure 1. Time spent in unpaid work by sex in selected OECD countries (minutes per day). Source: OECD (2021b).

single comparative dataset, the annual review published by the International Network on Leave Policies and Research, the most recent of which is the 17th review (Koslowski et al., 2021), gives the most up-to-date and reliable information. According to the report, the majority of fathers in Nordic countries take leave. For instance, in Sweden, 88.3 percent of fathers of children born in 2004 took leave before their child's eighth birthday (Duvander & Löfgren, 2021) and in Iceland, 86.4 percent of fathers took leave in 2017 (Eydal & Gíslason, 2021) while in Norway about 90 percent of eligible fathers take leave (Bungum & Kvande, 2020). As for non-Nordic settings that are often studied in the international fathers' leave literature, Canadian fathers in Quebec took leave for 81 percent of the births covered by the Québec Parental Insurance Plan (QPIP) (Doucet et al., 2021) while in Germany, 40.4 percent of fathers took up parental leave benefit for births in 2017 (Reimer et al., 2021). On the other hand, in Korea, less than two percent of fathers of children born in 2019 took parental leave, despite recent and rapid increases (Statistics Korea, 2020). In Japan, the only other East Asian country with paid statutory parental leave entitlements for fathers, 7.5 percent of male workers applied for leave in 2019 (Nakazato et al., 2021). The low uptake rate in the two East Asian countries again goes to show that while fathers' uptake of leave may be a norm in some parts of the world, it is an exception to the norm in East Asia, especially in Korea.

In line with this, the growing scholarship on parental leave has demonstrated not only similarities but also diversities in fathers' leave experiences and outcomes depending on the national context, highlighting how the international landscape of fathers' uptake of leave cannot be painted in a single stroke of a brush. In particular, Wall and O'Brien (2017) point out how 'the introduction of new policies in some countries is reaching out not only to men who are expecting to become highly involved parents and solo carers but also to some fathers who do not see themselves as equal sharers or primary caregivers at the outset' (p. 261). Put another way, in countries where fathers' leave is not common, fathers' leave may primarily attract fathers who already actively share unpaid labour. In this vein, the degree to which fathers' uptake of leave is a selective process can have implications on which fathers opt to take leave as well as the degree of impact that leave-taking

subsequently has on these fathers' behaviour. This raises the question of whether and to what extent the trends we observe in Western contexts in terms of the impact of fathers' uptake of leave on their involvement in unpaid labour is generalisable to a non-Western setting such as Korea which is in a different phase of the gender revolution and where a small minority of fathers take leave. It is worth asking whether fathers who take leave 'undo gender' even in such settings where fathers' uptake of leave is highly selective.

However, as the existing studies of the relationship between fathers' parental leave uptake and domestic involvement primarily document Western settings, our knowledge of the impact of fathers' leave on their domestic involvement in the East Asian setting is limited. On the other hand, there exist works that document fathers' parental leave experiences in Korea, but these are often based on small scale qualitative interviews (Byun & Won, 2019; Choi et al., 2019a, 2019b; Hong, 2018; Kang, 2013; Kim & Kwon, 2015; Kim & Kim, 2015; Kim & Kim, 2019; Kim & Kwon, 2015; Lee, 2022b; Na, 2014), and there exists no quantitative study that compares how fathers' involvement in unpaid labour differs by their parental leave uptake status, in part due to the absence of suitable data. The same could be said of Japan; Nakazato (2017) provides a rare qualitative study of Japanese fathers' leave experiences, but there is no quantitative study of fathers' leave and division of unpaid labour in the Japanese context in the English language that the author is aware of. These existing qualitative studies are generally concerned with whether and how fathers taking leave can contribute to gender equality and a better balance between work and family life, offering both instances of transformation as well as barriers to actualising such aims. However, they do not give us a generalisable sense of whether and to what extent fathers' taking leave matters for a more gender-equal division of unpaid domestic labour. Hence, there is a need for quantitative studies to systematically examine whether observed differences between leave-taking fathers and non-taking fathers can be attributed more to transformations that occur during leave or to already egalitarian fathers choosing to take leave.

This lacuna motivates my research, which will examine the relationship between fathers' uptake of parental leave and their contribution to housework and childcare in Korea. The unavailability of suitable secondary data confines my research to the use of web survey data. Nonetheless, by categorising fathers by not only whether they have taken leave but also whether they have plans to take their first leave, I compare fathers who share the disposition to take leave by whether their leave is *completed* or *expected*. This analytic strategy allows me to distinguish whether observed differences among fathers can be attributed more to selection or leave experience (see Lee, 2022a; Pailhé et al., 2018 for other studies that use such an approach). This paper thus extends the existing literature with the examination of an overlooked setting as well as an under-utilised approach to address selection effects. While my research focuses on Korea, it may enhance our understanding of and have implications for other countries in East Asia or elsewhere in inchoate stages of the gender revolution. Before presenting the research, I present a brief overview of the Korean fathers' leave policy and context.

4. Fathers' uptake of parental leave in South Korea

Since the introduction of unpaid parental leave policy in 1987 for female workers with a child under one year old, leave policy has gone through multiple phases of development and expansion in Korea. One critical change was in 2001, when the legislation changed to

allow both male and female workers to take paid leave of one year each at a modest benefit rate. In the years that followed, the benefit rate gradually increased, and this was accompanied by an upward adjustment in the age limit of the child to be eligible for parental leave, allowing parents to take leave for children aged eight and younger. In 2014, an incentive mechanism was introduced to encourage fathers to take leave, granting higher benefit rates to the second parent to take leave for the first month of leave. While the second parent to take leave could technically be either the mother or father, in nearly 90 percent of all cases it is the father who follows the mother's leave (Ministry of Employment and Labor, 2020). The incentive thus came to be known as the 'father's month benefit' or the 'father's bonus'. By 2020, Korean fathers could use a non-transferable leave up to twelve months for each child aged up to eight years. If he is the second parent to take leave, he can receive up to 2,500,000 won (around \$2000) for the first three months and up to 1,200,000 won (around \$1000) during the rest of the leave. However, this is not generous, considering that the population-level monthly median wage in 2021 was approximately 4,000,000 won (around \$3200) for a three-person household and 4,900,000 won (around \$4000) for a four-person household (Statistics Korea, 2021). While the general consensus in the international literature on leave policy considers 'well-paid leave' to cover around two-thirds or more of earnings (Dearing, 2016; Koslowski, 2021; Ray et al., 2010), the average payment rate in Korea is a mere 42.0 percent. This is substantially lower than Norway's 95.5 percent, Iceland's 77.9 percent, Sweden's 75.5 percent, or Germany's 65.0 percent of previous earnings (OECD, 2021a).

Despite the still lacking levels of payment rate, the expansion of leave benefits and incentives targeting fathers have contributed to a rapid increase in the number of fathers taking leave in recent years. While in 2014 only 6,213 fathers took leave, this number increased by more than fivefold by 2019 to 31,665 (Statistics Korea, 2020; see Table 1 for details). However, recent statistics suggest that fathers who take leave account for less than two percent of children born in 2019 (Statistics Korea, 2020; see Table 1 for details). Interestingly though, the average length of Korean fathers' leave was 6.8 months in 2018 (National Assembly Budget Office, 2019), substantially longer than Sweden's 130 days, Iceland's 70 days, and Finland's 30 days (NOSOSCO, 2017). In fact, Lee (2022b) suggests that it is not uncommon for fathers to take a full year's leave, sometimes even longer. In short, Korea's parental leave policy for fathers is among the longest globally but modest in terms of income replacement rate. In such a context, fathers are increasingly taking up leave, but still, the leave-taking fathers are exceptions to the norm. Given that Korea is notorious for its gender unequal division of domestic labour, the recent developments in Korean fathers' uptake of parental leave makes one wonder what it implies for gender equality within the home. What is clear is that the recent changes provide a timely and apposite ground to explore the changing behaviours and values of fathers in modern Korean families.

5. Research hypothesis

Based on my review of the literature and the Korean context, I seek to examine how fathers' contribution to three dimensions of unpaid domestic labour (housework, developmental childcare, and routine childcare) differ by their parental leave uptake status. Building on previous studies documenting Western contexts, I hypothesise that a significant difference

Table 1. Key trends in parental leave uptake (2010–2019).

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of users										
<i>Total</i>	72,769	93,859	105,072	110,615	124,593	135,459	139,071	140,531	152,241	159,153
<i>Female</i>	70,807	90,820	101,392	106,137	118,380	127,262	127,141	122,405	127,254	127,488
<i>Male</i>	1,962	3,039	3,680	4,478	6,213	8,197	11,930	18,126	24,987	31,665
<i>Male/total</i>	2.7%	3.2%	3.5%	4.0%	5.0%	6.1%	8.6%	12.9%	16.4%	19.9%
Actual users for those eligible per 100 children born each year										
<i>Female</i>	41.0	47.4	50.2	53.7	56.8	59.3	60.5	62.0	62.9	63.6
<i>Male</i>	0.2	0.2	0.2	0.3	0.3	0.4	0.5	1.2	1.5	1.8

Data: Statistics Korea (2020).

will be found between fathers who have taken leave and fathers who have not, even after accounting for the selection of already-involved fathers into leave. Specifically, I hypothesise the following:

- (1) Compared to fathers with neither leave experience nor plan, fathers with parental leave *experience* will contribute more to unpaid labour.
- (2) Compared to fathers with neither leave experience nor plan, fathers with *plans* to take parental leave will contribute more to unpaid labour.
- (3) Compared to fathers with *plans* to take parental leave, fathers with parental leave *experience* will contribute more to unpaid labour.
- (4) Fathers will contribute more to unpaid labour the *longer* their leave experience was.

6. Data and methods

The data for this study is based on a Qualtrics web survey¹ which employs a non-probability sampling strategy. The survey was mainly advertised and distributed from May 2020 to March 2021 through online parenting platforms and attracted participants with a random gift coupon draw. It targeted fathers in heterosexual marriage relationships with at least one child born in or after 2013 and invited fathers with parental leave experience or plan in particular to take part. The survey covers the respondent's family, demographic, and employment background, division of unpaid labour and gender role attitudes.

Due to the way the data is collected, the sampled fathers are not representative of fathers in the general population. It draws on a selective sub-population of fathers who are highly engaged in childcare and family life; respondents who would be browsing online parenting communities, showing interest in the research advertisement, and completing the survey are likely to be fathers with considerable levels of interest in childcare and family matters. However, if fathers with leave experience are more involved in housework and/or childcare than those without among a selective sample of involved fathers, we may conjecture that this difference could be more prominent in a representative sample of fathers where fathers are, on average, less domestically involved. Moreover, Ito and Todoroki (2021) suggest in their recent paper that multivariate analysis reduces the discrepancies between results based on online survey data and those based on representative data. Hence, while caution is required in generalising the findings to the population level, web surveys can be a sensible choice in the absence of suitable representative data, especially for research on atypical sub-populations.

6.1. Variables

Father's share of housework and childcare: Sullivan (2013) stresses the need to treat housework and childcare, as well as routine and developmental childcare activities, as theoretically and analytically distinct. Based on an overview of the literature, Sullivan suggests that men tend to be more involved in childcare than housework and developmental childcare than routine childcare, indicating the heterogenous extents to which these dimensions of unpaid household labour are considered feminine, (un)enjoyable and (un)desirable. In line with this, the international literature on the relationship

between fathers' uptake of leave and gendered division of unpaid household labour has distinguished between different types of household labour wherever the data allows (e.g. Almqvist & Duvander, 2014; Bünning, 2015; Doucet & McKay, 2020; Patnaik, 2019; Petts & Knoester, 2018; Schober, 2014), some of these studies finding divergent or varying results across the dimensions, as discussed earlier in this paper. As such, the current study presents three dependent variables capturing distinct dimensions of unpaid household labour: father's relative share of the total housework, routine childcare, and developmental childcare. For housework, the respondents were asked how they have recently divided the following items: cooking, dishwashing, cleaning, shopping, laundry, fixing, and other housework chores. For childcare, the same was asked for the following items: feeding, washing, dressing (routine children), and playing with and helping with studying (developmental childcare). I first coded 'never/not applicable' as 0, 'occasionally' as 1, 'half the time' as 2, 'most of the time' as 3, and 'always' as 4 for each item and then averaged the total value by the total number of applicable items. For convenience in interpretation, the father's share of housework and childcare was then recalibrated to take a value between 0 and 100, with 50 meaning equal share between the respondent and his wife.

Father's uptake of leave: The main independent variable is fathers' parental leave status. This categorical variable can take one of the following four values: the father is currently on leave ('on leave'); the father has taken leave in the past ('have taken'); the father has never taken leave before but has plans to take leave in the near future ('plan to'); or the father has never been on leave and also has no plans to take leave ('no leave'). I further specified fathers who 'have taken' leave by the length of their leave: short (~3 months), moderately long (4~11 months), and very long (12~ months). With the recognition that what constitutes a short or long leave is relative and varies across different national contexts², these categories were derived based the following aspects of the policy design and fathers' leave uptake pattern in Korea as well as the data used in the present study. First, the Korean parental leave policy is designed so that each parent can take one year of leave but the 'father's bonus' covers the first three months only. The cut-off points of three and twelve months make sense given such elements of the policy design. Also, Korean fathers take some of the longest leave in the world with their mean length of leave approximating seventh months (National Assembly Budget Office, 2019) and it is not uncommon for fathers to take the maximum period of one year or even longer (Lee 2022b). Hence, while three months may be considered fairly long elsewhere, it is on the short side in Korea. Moreover, the above cut-off points also produced three groups roughly balanced in size in deriving an ordinal variable on the length of leave (see Table 2). It should be noted that because fathers were asked to respond based on their most recent leave, the survey did not distinguish those who have taken leave multiple times as opposed to just once and if fathers are currently on their Nth leave, they would be categorised as 'on leave'. Also, while hypothetically there could be fathers who have plans to take leave but are unable to follow through with their plans or those who had no plans to take leave who end up unexpectedly taking leave, the 'plan to' response was worded to indicate that fathers have concrete and upcoming intentions for leave. Furthermore, since parents are required to apply for parental leave at least thirty days before the start of their leave and it is common for Korean fathers to informally negotiate their leave with their employer months in advance (Hong, 2018; Kim

& Kwon, 2015), it is reasonable to assume that most fathers would have concrete plans to take leave well in advance.

Gender role attitudes: I measure fathers' gender roles attitudes as the extent to which fathers subscribe to male breadwinner and female caregiver ideals by synthesising their level of agreement (1: strongly agree, 2: somewhat agree, 3: somewhat disagree, 4: strongly disagree) to the following ten statements: a) it is ideal for the husband to have a career and the wife to care for the home, b) it is not good for the relationship if the wife earns more than the husband, c) during an economic recession it is okay to fire women first, d) if one parent has to quit work to care for the child, it should be the wife, e) husbands in dual-earning couples should help out with housework under their wives' lead, f) given the opportunity, men can be as skilled at housework and child-care as women, g) boys and girls should be raised according to their gender roles, h) the most important role of a father is to financially provide for the family, i) one should prioritise his family over his work, and j) spending time with my family is a joy rather than a burden. The Cronbach's alpha score for the eight statements is 0.77 which indicates high internal reliability, and the synthesised variable was recalibrated to take the value of 0 (least egalitarian) to 100 (most egalitarian).

In line with the previous literature, the multivariate analysis also controls for the age, education, monthly income (coded as 0 if not economically active), and current paid work hours (coded as 0 if currently on leave or not economically active) of both parents, the fathers' attitudes about gender and family roles, as well as the number of children.

6.2. Analytic strategy

My analytic strategy aims to account for the selection of particular fathers into leave based on the understanding that considerable difference between fathers with leave experience and those without is attributable to selection effects. Pailhé et al. (2018) address selection effects via 'the comparison of takers (those who have already taken the leave) and future takers (those who will take the leave but have not yet taken it)' (p. 22), based on the idea that 'those two categories of fathers are not different in terms of unobserved heterogeneity once all the observed characteristics are taken into account' (p. 23; see also Lee, 2022a). Following and expanding on this strategy, I first compare fathers who are currently on leave, who have taken leave, and those with plans to take first leave shortly to fathers with no leave experience or plan (the reference category), then run post-estimations to compare fathers who are currently on or have taken leave to those with plans to take leave. In particular, the direct comparison between fathers planning to take leave and fathers with leave experience allows me to – to an extent – isolate the effect of fathers sharing similar dispositions selecting into leave. By doing this, I am able to check whether and to what extent it is the selection of fathers who are already involved in unpaid labour into leave or the experience of taking leave that explains differences between the categories of fathers.

7. Descriptive findings

Table 2 summarises the composition and key demographic characteristics of fathers in the sample by their leave uptake status. Roughly half of the respondents had either

experience of or plan to take leave – 270 (23.54 percent) had taken leave in the past, 165 (14.39 percent) were currently on leave, 171 (14.91 percent) were planning to take leave – and the remaining 541 (47.17 percent) had neither leave experience nor plan. The mean length of the 270 fathers who took leave in the past was 7.67 months. Among these fathers, 79 (30.27 percent) had taken short leave up to three months, 100 (38.31 percent) moderately long leave between four to eleven months, and 71 (31.42 percent) very long leave of one year or more. The ‘average father’ was thirty-seven years old and had one or two children, with his youngest child around three years old.

The ‘no leave’ fathers stand apart from the fathers of the other three groups in several regards. First, the three groups of fathers with leave experience or plan are more educated on the whole, with around 80 percent of fathers and their wives holding a university degree, while this is the case for 65 percent of the ‘no leave’ group. Also, nearly half of the wives of the ‘no leave’ fathers are economically inactive, while this is the case for only around a quarter or of wives of fathers in the other three categories – this explains the differences in the mean income of the wives. In part due to the lower proportion of dual-income couples, the ‘no leave’ fathers have the lowest mean household income but the highest mean individual income. The relatively high individual income of fathers in the ‘no leave’ group appeared to be driven mainly by a small proportion (around 5 percent) of fathers who belonged to the highest monthly income category (more than 7,500,000 *won* or around \$6250). One more thing to note would be that both the proportion of those with just one child (around 70 percent) and those with wives who are currently pregnant (around 20 percent) are the highest for fathers who plan to take leave. Finally, the proportion of wives who are currently on leave (around 40 percent) is the highest for fathers who plan to take leave. This suggests that these fathers are planning to take leave when their wives finish theirs, a common arrangement in Korea.

Figure 2 presents the mean values of fathers’ gender role attitudes as well as their share of housework and developmental and routine childcare by leave uptake status.

Table 2. Key demographic characteristics of fathers by leave uptake.

	<i>On leave</i>	<i>Have taken</i>	<i>Plan to</i>	<i>No leave</i>	<i>Overall</i>
Leave length (mean m.)	–	7.67	–	–	–
<i>Short (~3 m.)</i>	–	79 (30.27%)	–	–	–
<i>Moderate (4~11 m.)</i>	–	100 (38.31%)	–	–	–
<i>Very long (12~ m.)</i>	–	82 (31.42%)	–	–	–
Father mean age	36.20	37.44	35.95	37.42	37.03
Wife mean age	34.28	32.04	33.57	35.06	34.01
Mean # of children	1.57	1.62	1.36	1.55	1.54
<i>One child</i>	50.91%	46.67%	71.35%	56.01%	55.36%
<i>Two or more children</i>	49.09%	53.33%	28.65%	43.99%	44.64%
Wife is pregnant	11.52%	7.41%	18.13%	9.43%	10.55%
Mean age of youngest	2.90	3.93	2.53	3.52	3.38
Father university degree	78.18%	82.22%	84.21%	65.43%	74.02%
Wife university degree	78.79%	79.63%	78.36%	67.10%	73.41%
Wife is currently ...					
<i>Working (full/part-time)</i>	58.18%	56.30%	39.76%	35.30%	44.20%
<i>On leave from work</i>	18.79%	15.93%	39.77%	19.22%	21.45%
<i>Economically inactive</i>	23.03%	27.78%	20.47%	45.47%	34.35%
Mean father income (₩)	334.55	348.52	349.12	370.43	356.93
Mean wife income (₩)	233.33	225.93	218.71	142.14	186.40
N	165	270	171	541	1,147
(%)	(14.39%)	(23.54%)	(14.91%)	(47.17%)	(100%)

The general pattern is that the ‘no leave’ fathers hold the least egalitarian gender role attitudes (of around 55) while the other three groups of fathers either with leave experience or plan similarly hold notably higher mean values of gender role attitudes (of around 65), giving weight to the idea that these fathers are predisposed to similarly egalitarian gender role values. I find a similar pattern for the mean values of housework and childcare. While it is not surprising that fathers currently on leave contribute the most to unpaid labour, the ‘have taken’ and even the ‘plan to’ fathers on average also contribute notably more to all types of housework than the ‘no leave’ fathers, this pattern being stronger for housework and developmental childcare than routine childcare. This could again be explained by the differences in predispositions of fathers who choose to take leave and those who do not. It is furthermore notable that fathers across all categories tend to be more involved in housework as opposed to the two types of childcare.

To sum, cross-tabulations demonstrate a consistent pattern of current and past father’s leave takers as well as those expecting to take leave holding more flexible gender role attitudes and contributing more to housework and childcare than their ‘no leave’ counterparts. However, these patterns may be overestimated because they do not consider factors that may be associated with both leave uptake status and domestic involvement. Moreover, as a comparison of mean values does not account for the dispersion of values, we lack an understanding of systematic associations between fathers’ uptake of parental leave and their domestic involvement. Thus, I will next run a series of multivariate analyses to further test the four hypotheses.

8. Multivariate analysis

I present four sets of OLS regression models in Tables 3, 4, and 5, each demonstrating the relationship between fathers’ leave uptake and housework, developmental childcare, and routine childcare respectively. All three models take the ‘no leave’ fathers as the reference

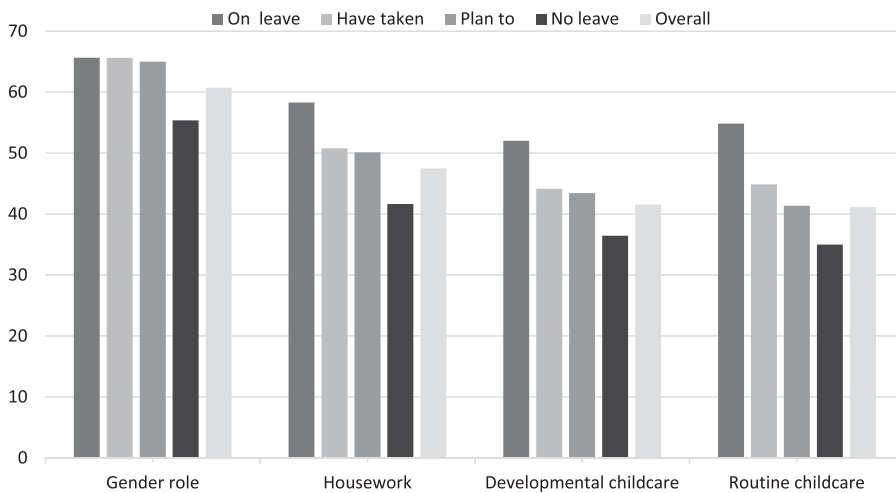


Figure 2. Fathers’ mean gender role attitudes, housework, and childcare by leave uptake.

category and control for the age, education, income, and current paid work hours (coded as 0 if currently on leave or otherwise economically inactive) of both parents, the fathers' gender role attitudes, and the number of children (one/ more than one).

I first present findings from [Table 3](#) on housework. Unsurprisingly, results indicate that fathers who are 'on leave' report doing a considerably greater share of housework (of more than 10 percent) than fathers with neither leave experience nor plan ($p < 0.001$) in models 1–3. As the paid work hours of fathers currently on leave is coded as 0, additionally controlling for fathers' work hours in models 4 and 5 absorbs the effect of fathers being on leave. As for the fathers who 'have taken' leave, they are also found to consistently do more housework (of more than 3 percent) than the reference group, 'no leave' fathers, throughout all models ($p < 0.01$). Interestingly, fathers who 'plan to' take leave also contribute similarly more to housework (of more than 3 percent) than the 'no leave' fathers across all models ($p < 0.05$). I run F-tests to directly test whether there is a statistically significant difference between the involvement in housework of fathers who 'have taken' leave and fathers who 'plan to' take leave. The results of the post-estimation analysis, presented at the bottom of [Table 2](#), fails to demonstrate a statistically significant difference between the 'have taken' and 'plan to' fathers for housework across all models. This suggests that fathers who are already involved in housework opt into leave, rather than fathers becoming more involved subsequent to taking leave.

Similarly, for developmental childcare, [Table 4](#) indicates that fathers who are currently 'on leave' contribute considerably more (around or more than 12 percent) than the 'no leave' fathers ($p < 0.001$), an effect which is again absorbed with the addition of the father's paid work hour variable in models 4 and 5. All models indicate that fathers who have taken leave in the past are more involved in developmental childcare (by around 4 percent) than the 'no leave' fathers ($p < 0.01$). Again, the fathers who plan to take their first leave shortly are also found to be more involved in developmental childcare (by around 4 percent) ($p < 0.05$). However, post-estimations find no significant difference between fathers planning to take their first leave and fathers who have taken leave, pointing to the prominence of selection effects.

Finally, results in [Table 5](#) indicate that fathers who are currently 'on leave' contribute considerably more to routine childcare (by more than 14 percent) than 'no leave' fathers ($p < 0.001$) before adding the variable on father's paid work hour in models 4 and 5. As with housework and developmental childcare, fathers do significantly more routine childcare (both by around or more than 5 percent) if they have taken leave, compared to fathers with no such experience or plan ($p < 0.01$). However, a key difference from the models on housework and development childcare is that for routine childcare, the difference between fathers planning to take their first leave and fathers with no such plans is smaller and not statistically significant at the 5 percent level. Post-estimations narrowly fall short of identifying a statistically significant difference at the 5 percent level between 'have taken' and 'plan to' fathers.

I further study fathers' involvement in housework and both types of childcare by the length of leave (short/moderately long/very long), again using the 'no leave' fathers as the reference category and controlling for the same set of variables as in model 5 of [Tables 3, 4, and 5](#). [Table 6](#) illustrates that for all three types of unpaid labour, a positive relationship is found for all categories of leave length,

Table 3. OLS regressions on fathers' share of housework by leave uptake.

	(1)	(2)	(3)	(4)	(5)
VARIABLES					
Leave uptake (baseline: No leave)					
<i>On leave</i>	13.57*** (1.47)	11.31*** (1.45)	10.80*** (1.44)	1.22 (2.18)	1.22 (2.11)
<i>Have taken</i>	5.36*** (1.23)	3.72** (1.21)	3.30** (1.20)	3.21** (1.18)	3.47** (1.18)
<i>Plan to</i>	4.63** (1.43)	3.14* (1.40)	3.56** (1.39)	3.76** (1.37)	3.51* (1.36)
father age	-0.12 (0.11)	-0.15 (0.10)	-0.19+ (0.10)	-0.24* (0.10)	-0.18+ (0.10)
wife age	-0.01 (0.02)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)
father university	3.45** (1.25)	3.86** (1.22)	3.96*** (1.21)	3.37** (1.19)	3.24** (1.19)
wife university	0.45 (1.20)	-1.25 (1.19)	-1.22 (1.18)	-0.90 (1.16)	-1.12 (1.16)
father income		-0.01*** (0.00)	-0.01*** (0.00)	-0.00 (0.00)	-0.00 (0.00)
wife income		0.02*** (0.00)	0.02*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
gender role	0.29*** (0.03)	0.24*** (0.03)	0.24*** (0.03)	0.24*** (0.02)	0.24*** (0.02)
wife work hour			-0.11*** (0.27)	0.11*** (0.03)	0.11*** (0.03)
father work hour				-0.22*** (0.04)	-0.22*** (0.04)
children>1					-2.63** (0.94)
Constant	28.03*** (4.37)	33.16*** (4.31)	33.84*** (4.28)	43.93*** (4.52)	43.29*** (4.51)
Observations	1,025	1,025	1,025	1,025	1,025
Adj. R-squared	0.24	0.29	0.30	0.32	0.33
[POST-ESTIMATION]					
H0: 'Have taken' - 'Plan to' = 0					
	F (1, 1016) = 0.22 Prob > F = 0.64	F (1, 1014) = 0.15 Prob > F = 0.70	F (1, 1013) = 0.03 Prob > F = 0.86	F (1, 1012) = 0.14 Prob > F = 0.71	F (1, 1011) = 0.00 Prob > F = 0.98

Standard errors in parentheses.
 *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.

though with variations in the level of statistical significance as well as the coefficient size. A progressively larger coefficient and/or a greater level of significance is observed for the longer leave categories; results for short leave is insignificant and results for moderate leave fall short of the conventional threshold of $p < 0.05$ for all three types of unpaid labour, while the results are significant for very long leave ($p < 0.01$ for housework and developmental childcare and $p < 0.001$ for routine childcare). The results thus suggest that it is primarily the fathers who take very long leave who drive the significantly positive association between fathers' uptake of leave and their involvement in housework and childcare. I do not present the full results including the control variables and the other categories of fathers, but they were in line with the results in Tables 3, 4, and 5.

Next, I run post-estimations to compare whether there is a significant difference between fathers generally planning to take leave and each group of fathers who have taken short, moderate, and very long leave in order to account for (some of) the selection effects. I find that a substantial (around 7 percent) and significant ($p < 0.01$) difference

Table 4. OLS regressions on fathers' share of developmental childcare by leave uptake.

	(1)	(2)	(3)	(4)	(5)
VARIABLES					
Leave uptake (baseline: No leave)					
<i>On leave</i>	13.51*** (1.69)	12.43*** (1.72)	11.88*** (1.71)	2.01 (2.52)	2.01 (2.52)
<i>Have taken</i>	4.95** (1.42)	4.17** (1.43)	3.71** (1.43)	3.61** (1.41)	3.71** (1.41)
<i>Plan to</i>	4.32** (1.65)	3.61* (1.65)	4.06* (1.65)	4.27** (1.63)	4.18* (1.63)
father age	-0.02 (0.12)	-0.03 (0.12)	-0.07 (0.12)	-0.12 (0.12)	-0.10 (0.12)
wife age	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)
father university	2.25 (1.44)	2.44+ (1.45)	2.55+ (1.44)	1.94 (1.42)	1.89 (1.43)
wife university	0.10 (1.38)	-0.72 (1.41)	-0.69 (1.40)	-0.35 (1.38)	-0.43 (1.38)
father income		-0.01 (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)
wife income		0.01*** (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
gender role	0.23*** (0.03)	0.21*** (0.03)	0.21*** (0.03)	0.21*** (0.03)	0.21*** (0.03)
wife work hour			-0.12*** (0.03)	0.12*** (0.03)	0.12*** (0.03)
father work hour				-0.22*** (0.04)	-0.23*** (0.04)
children>1					-0.96 (1.12)
Constant	22.94*** (5.03)	25.36*** (5.10)	26.10*** (5.07)	36.49*** (5.38)	36.26*** (5.39)
Observations	1,024	1,024	1,024	1,024	1,024
Adj. R-squared	0.15	0.15	0.16	0.19	0.19
[POST-ESTIMATION]					
H0: 'Have taken' - 'Plan to' = 0					
	F (1, 1015) = 0.12 Prob > F = 0.72	F (1, 1013) = 0.10 Prob > F = 0.76	F (1, 1012) = 0.04 Prob > F = 0.84	F (1, 1011) = 0.14 Prob > F = 0.71	F (1, 1010) = 0.07 Prob > F = 0.79

Standard errors in parentheses.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.

exists only for routine childcare in the case of fathers who have taken very long leave. In contrast, the other results from post-estimations all find marginal and insignificant differences when compared to fathers who plan to take leave, regardless of the length of leave taken. In understanding these findings, it must be emphasised that I am unable to run post-estimation analysis specifying the direct comparison between the 'plan to' and 'have taken' fathers by each category of leave length, as there is no information on the length of leave that the 'plan to' fathers intend to take. While one must be cautious with the interpretation because I am unable to control for the further selection of certain fathers into particularly long leave, the results are suggestive of some impact of very long leave on fathers' further involvement in routine childcare.

I conducted the following robustness checks, the results of which are presented in the Appendices. First, I repeated the analysis accounting for the age of the youngest child by including an additional variable controlling for the age of the youngest child (see Tables A1 and A2 of the Appendices) as well as by restricting the sample by the age of the youngest child – for instance with samples where the youngest child is five or younger, or three or younger (see Tables A3 and A4 of the Appendices). Second, I ran models with the

Table 5. OLS regressions on fathers' share of routine childcare by leave status.

	(1)	(2)	(3)	(4)	(5)
VARIABLES					
Leave uptake (baseline: No leave)					
<i>On leave</i>	16.28*** (1.83)	15.09*** (1.85)	14.48*** (1.85)	2.86 (2.71)	2.86 (2.72)
<i>Have taken</i>	6.45*** (1.54)	5.56*** (1.55)	5.05*** (1.55)	4.95*** (1.53)	4.99** (1.53)
<i>Plan to</i>	3.09+ (1.78)	2.34 (1.79)	2.83 (1.78)	3.09+ (1.75)	3.05+ (1.76)
father age	-0.02 (0.13)	-0.02 (0.13)	-0.06 (0.13)	-0.13 (0.13)	-0.12 (0.13)
wife age	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)
father university	3.62* (1.56)	4.06** (1.57)	4.17** (1.56)	3.42* (1.54)	3.40* (1.54)
wife university	0.46 (1.49)	-0.21 (1.52)	-0.19 (1.51)	0.23 (1.49)	0.20 (1.50)
father income		-0.01* (0.00)	-0.01* (0.00)	-0.00 (0.00)	-0.00 (0.00)
wife income		0.01** (0.00)	0.00 (0.00)	-0.01 (0.00)	-0.00 (0.00)
gender role	0.29*** (0.03)	0.27*** (0.03)	0.27*** (0.03)	0.26*** (0.03)	0.26*** (0.03)
wife work hour			-0.13*** (0.03)	0.13*** (0.03)	0.13*** (0.03)
father work hour				-0.26*** (0.05)	-0.27*** (0.05)
children>1					-0.39 (1.21)
Constant	17.65** (5.46)	21.09*** (5.54)	21.88*** (5.50)	34.03*** (5.81)	33.94*** (5.82)
Observations	1,017	1,017	1,017	1,017	1,017
Adj. R-squared	0.19	0.20	0.21	0.23	0.23
[POST-ESTIMATION]					
H0: 'Have taken' - 'Plan to' = 0					
	F (1, 1008) = 2.98 Prob > F = 0.08	F (1, 1006) = 2.76 Prob > F = 0.10	F (1, 1005) = 1.31 Prob > F = 0.25	F (1, 1004) = 0.95 Prob > F = 0.33	F (1, 1003) = 1.01 Prob > F = 0.32

Standard errors in parentheses.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.

inclusion of an additional variable on whether the wife is currently pregnant (see [Table A5](#) of the Appendices). Third, I ran models with a restricted sample excluding fathers who are currently on leave (see [Table A6](#) of the Appendices). Fourth, I ran the analysis separately for those with one child and those with more than one child (see [Tables A7](#) and [A8](#) of the Appendices).

There were some minor changes in the sizes of the coefficients and levels of significance, but the general findings pointing to the importance of taking a long leave and the lack of a significant difference between fathers who plan to take leave and fathers who took short or moderately long leave remained consistent. The difference between fathers who took leave and fathers who plan to take leave for routine childcare remained statistically significant in all but two models: first where I limited the sample to cases where the youngest child is three or younger and second where I limited the sample to cases where the household had more than one child (see [Tables A4](#) and [A8](#) of the Appendices). The decrease in the level of significance could potentially be because of small sample size, but caution is required in interpreting findings.

Table 6. OLS regression models of housework and childcare by leave length.

VARIABLES	(1) Housework	(2) Developmental childcare	(3) Routine childcare
Leave length (baseline: no leave)			
<i>On leave</i>	1.45 (2.11)	2.35 (2.52)	3.32 (2.71)
<i>Have taken short leave (~3 m)</i>	2.02 (1.80)	1.11 (2.15)	2.48 (2.32)
<i>Have taken moderate leave (4~11 m)</i>	2.97+ (1.64)	3.56+ (1.96)	3.47 (2.12)
<i>Have taken very long leave (12~ m)</i>	5.92** (1.89)	7.03** (2.25)	10.33*** (2.47)
<i>Plan to</i>	3.55** (1.36)	4.24** (1.63)	3.12+ (1.75)
Observations	1,025	1,024	1,017
Adj R-squared	0.33	0.19	0.24
[POST-ESTIMATIONS]			
H0: 'Short leave' – 'Plan to' = 0	F (1, 1009) = 0.56 Prob > F = 0.46	F (1, 1008) = 1.65 Prob > F = 0.20	F (1, 1001) = 0.06 Prob > F = 0.81
[POST-ESTIMATIONS]			
H0: 'Moderate leave' – 'Plan to' = 0	F (1, 1009) = 0.10 Prob > F = 0.76	F (1, 1008) = 0.10 Prob > F = 0.76	F (1, 1001) = 0.02 Prob > F = 0.88
[POST-ESTIMATIONS]			
H0: 'Very long leave' – 'Plan to' = 0	F (1, 1009) = 1.29 Prob > F = 0.26	F (1, 1008) = 1.25 Prob > F = 0.26	F (1, 1001) = 7.06 Prob > F = 0.01

Standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.

Controlling for: age, education, monthly income, and working hours of both parents, and fathers' gender role attitudes.

Based on the findings from the multivariate analysis, what verdict can we reach on the hypotheses? First, fathers who have taken leave contribute more to housework and both types of childcare than the 'no leave' fathers, but only significantly so if they have taken long leave. Fathers with plans to take leave also contribute significantly more to housework and developmental childcare than fathers with neither leave experience nor plan, but not necessarily significantly so for routine childcare. Finally, results from post-estimations found a lack of evidence of a statistically significant difference between fathers who 'plan to' take leave and fathers who 'have taken' short or moderately long leave. Though not consistently across all robustness checks, I found a significant difference between fathers taking very long leave and fathers planning to take leave in the case of routine childcare.

9. Discussion and conclusion

Extant studies have found fathers' uptake of parental leave can contribute to fathers' increased involvement in unpaid labour in a range of Western contexts. However, we lack an understanding of whether the same holds in East Asia, where a small minority of fathers take leave and little progress has been made in the second half of the gender revolution. Addressing such a gap in the literature, I have examined the relationship between Korean fathers' uptake of parental leave and their contribution to housework, routine childcare, and developmental childcare. Based on a unique dataset that distinguishes fathers not just by their leave experience but also their plans to take leave, I was able to separate fathers who are about to take their first leave in the near future, a group which is predisposed to, but yet to be exposed to leave. This has allowed me to account, to a degree, for the issue of self-selection of particular fathers into leave.

Multivariate analysis found fathers with (long) leave experience to be significantly more involved in housework and both types of childcare than fathers with neither leave experience nor plan. Fathers planning to take their first leave soon were also found to be significantly more involved in housework and developmental childcare, but not routine childcare, compared to fathers with neither leave experience nor plan. When directly comparing fathers with leave experience and fathers planning to take their first leave, there was a lack of significant difference for fathers with the exception of routine childcare of fathers who took very long leave. This suggests that fathers who are already involved in housework and developmental childcare tend to self-select into leave but taking leave does not necessarily make them further involved in these two types of unpaid labour. On the other hand, in the case of routine childcare, fathers who had taken a very long leave of one year or longer were found to be significantly more involved than fathers with neither leave experience nor plan. While this tentatively suggests that fathers taking very long leave could lead to their increased involvement in routine childcare, results must be interpreted with caution as I was not able to account for the additional selection of fathers into particularly long leave. In short, the gender equalising impact of fathers' uptake of parental leave in Korea appears to be restricted mainly to long leave and routine childcare, if there exists any significant effect at all.

How do these findings from Korea enhance our broader understanding of the relationship between fathers' uptake of leave and unpaid labour? First, in a setting where fathers' uptake of leave is uncommon and men in general contribute little to unpaid labour – i.e. settings that have made little progress in transitioning to the second phase of the gender revolution – fathers who are already considerably involved in unpaid labour self-select into leave. As a result, the difference between leave-taking fathers and non-taking fathers could be attributed largely to selection effects. Second, even though fathers who choose to take leave are those who are relatively more involved in unpaid labour, they are particularly involved in housework and development childcare. In contrast, the selection effect seems to be weaker and the 'undoing gender' effect slightly more present for routine childcare, which is considered more labour intensive and less enjoyable, as Sullivan (2013) has noted. This is consistent with Doucet and McKay (2020) who write, 'because it is not yet the norm in Canada for men to take parental leaves, especially relatively long periods, these men who took leave might have already been highly (or somewhat) involved in domestic work' (p. 454). Kotsadam and Finseraas (2011) also point to how the gender equalising impact of fathers' leave is highly contingent on how (un)equally the tasks are divided prior to leave, finding 'a pronounced effect for the least equally shared task,' (p. 1620) in their study of Norway. Third, even when selection effects do not fully explain the difference between fathers with parental leave experience and those without (in the case of routine childcare), it seems that a very long leave of one year or longer may be required to see an increase in fathers' share of unpaid labour in the case of Korea. This contrasts with how in other countries, a few weeks' to a few months' leave has been found to lead to more equitable division of unpaid labour (e.g. Bünning, 2015; Kotsadam & Finseraas, 2011; Patnaik, 2019; Schober, 2014; Tamm, 2019).

Theoretically, this study suggests that different degrees of explanatory power may be attributed to selection effect as opposed to 'undoing gender' in different social contexts. It could be the case that when parental leave is taken up by only a minor portion of the total

fathers in society as still is in the Korean context, it selectively attracts highly particular and exceptional fathers. Arguably, as fathers' uptake of leave becomes more normalised and common and a greater proportion of fathers take leave, the fathers opting into leave would approximate closer to the average father in the society and this selection effect would fade. Perhaps then, the leave experience will have more room to further equalise the attitudes and behaviours of fathers with regards to the gendered division of unpaid labour, as in the cases of Germany, Quebec, and Norway discussed earlier, especially for fathers who are not necessarily egalitarian at the outset (Wall & O'Brien, 2017). This may allow us to observe to a greater degree of differences that can be attributed to a learning effect from leave experience rather than primarily the selection of already involved fathers into leave. On the other hand, another possible explanation of why we see a limited gender equalising impact of fathers' uptake of leave in Korea could be that fathers who take leave revert to work-oriented lives once their leave comes to an end (Lee, 2022b; see also Miller, 2010). This is demonstrated particularly well in a recent qualitative study of fathers' uptake of leave in Korea by Lee (2022b) which finds that a group of leave-taking fathers go back to putting work at the centre of their lives after their leave. Lee (2022b) hence suggests that 'the 'undoing gender' effect which is frequently documented during a father's leave is partially undone and fathers "redo gender" when they return to employment' (p. 15).

Then, returning to the question posed earlier in this paper, can parental leave policies help undo the male breadwinner/female caregiver model of gender roles and lead to a more egalitarian division of domestic labour in Korea? My findings suggest that with fathers who already actively partake in housework and developmental childcare opting more into leave, parental leave experience is not necessarily associated with the further redistribution of unpaid labour among couples, with the limited exception of routine childcare, where the fathers take very long leave. The prominence of selection effect rather than 'undoing gender' effect even among fathers who have self-selected into the web survey highlights how despite the recent rapid increases in the number of fathers taking leave, fathers' leave attracts highly selective and already gender-egalitarian fathers in Korea. In other words, in the Korean context, it seems that fathers who are already 'undoing gender' at home take fathers' leave, rather than fathers leave making them additionally 'undo gender' – with the possible and limited exception of routine childcare. This is not to say that leave-taking fathers are not 'undoing gender' but rather that fathers' uptake of leave in a setting where it is uncommon may be more of an indication or result of fathers 'undoing gender' rather than something that leads them to 'undo gender' even further. The results highlight the pressing need to further expand, promote, and normalise fathers' uptake of parental leave as well as the notion of egalitarian division of housework and childcare more generally. To do so it would be imperative to change working cultures, which is considered one of the greatest barrier in fathers exercising their right to take leave both in the Korean context (Hong, 2018; Kim & Kim, 2019; Lee, 2022b) as well as elsewhere (Haas & Hwang, 2019; Harvey & Tremblay, 2019). These findings have implications for other East Asian countries, such as Japan, as well as possibly other settings where fathers' leave is not yet widely taken up.

So far, the quantitative research on fathers' uptake of parental leave and its association with their domestic involvement have been concentrated in Western contexts. This paper

extends the existing literature by systematically examining and establishing this relationship for the first time, as far as the author is aware, in an East Asian country. Methodologically, this paper goes a step beyond just comparing fathers with leave experience and fathers without. By breaking down fathers into more detailed categories and differentiating fathers without leave experience by whether they have plans to take leave or not, I was able to compare across different groups of fathers. This has allowed me to distinguish, to an extent, the predisposition to leave (selection) and the effect of leave on 'undoing gender'. In doing so, I have demonstrated how the selection effects could be addressed in an absence of a suitable natural experiment research setting or panel data.

However, this research has multiple methodological limitations. The biggest drawback is that this research is confined by the use of non-representative cross-sectional web survey data, and thus caution is required in generalising the findings from this study to the population level. It must be stressed once more that the survey captures a very particular sub-population of fathers in Korea: caregiving fathers who browse online parental communities, a high proportion of whom have taken or plan to take leave. It is hence uncertain to what extent the patterns identified based on this selective sample of fathers would hold consistent when similar analysis is conducted on a more general sample of fathers. Additionally, as the data for this research was collected during the COVID19 pandemic, this may have potentially impacted the extent to which fathers were involved in unpaid labour, particularly the fathers who did not take leave (yet). Moreover, although I have introduced extensive controls of fathers' characteristics and compared among fathers sharing similar predispositions, there remains the possibility that the results are biased by unobserved heterogeneity as this research has compared across, not within individuals. In particular, there may exist differences in the selection of fathers with plans to take leave and those who already took leave due to changes in leave policy over the years such as gradual increase in benefit rates. As such, it should be stressed that this study has been able to control for some, but certainly not all, of the selection effects of fathers taking leave. Hence, it would be desirable for future research to further test the causal links by tracking the behaviours and attitudes of the *same individuals* over time with nationally representative large-scale panel data. Furthermore, the measures of contribution to housework and childcare in my data are rather crude, based on the fathers' self-reports of how housework and childcare activities have recently been divided. What is captured is a rough approximation of the actual division of labour, and self-reports often overestimate the actual work done and may differ from what is reported by the mothers. Thus, I recommend the adoption of more comprehensive, granular, and sophisticated measures of domestic involvement. Using time-use diaries, distinguishing between weekdays and weekends and solo and joint activities, and exploring more detailed and theoretically informed dimensions of paternal involvement or responsibility would all be promising directions for further research.

Notes

1. I confirm this study obtained ethical approval from the Ethical Approval and Risk Assessment Committee for Sociological Research of my home institution at the time (University of Cambridge) in December 2019 and all participants granted informed consent and permission for the data to be used for research purposes.

2. For instance, some studies distinguish fathers using up to or more than the quota (Duvander et al., 2019; Marynissen et al., 2019) while Ma et al.'s study of Sweden (2020) considers taking more than two months as long. In yet another comparative study of Sweden and Norway, Duvander et al. (2010) categorises fathers' leave in the following way: '(1) no leave benefit; (2) short leave, which is defined as leave benefits amounting to up to 3 percent of the earned income during the two years following childbirth; (3) moderate leave, which is defined as leave benefits equivalent to 3–10 percent of the father's total earned income; (4) long leave, being defined as leave benefits equivalent to 11–25 percent of his earnings; and (5) very long leave, defined as benefits equivalent to more than one-quarter of that income' (p. 51).

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This research was carried out as part of my doctoral studies, funded by the Cambridge Trust and Murray Edwards College. The revision for this paper was carried out during my ESRC postdoctoral fellowship at the LSE (Grant: ES/X006344/1).

ORCID

Youngcho Lee  <http://orcid.org/0000-0001-6592-0420>

References

- Almqvist, A.-L., & Duvander, A.-Z. (2014). Changes in gender equality? Swedish fathers' parental leave, division of childcare and housework. *Journal of Family Studies*, 20(1), 19–27. <https://doi.org/10.5172/jfs.2014.20.1.19>
- Arnalds, Á. A., Eydal, G. B., & Gíslason, I. V. (2013). Equal rights to paid parental leave and caring fathers – the case of Iceland. *Icelandic Review of Politics and Administration*, 9(2), 323–344. <https://doi.org/10.13177/irpa.a.2013.9.2.4>
- Berk, S. F. (1985). *The gender factory: The apportionment of work in American households*. Plenum.
- Brandth, B., & Kvande, E. (2018). Masculinity and fathering alone during parental leave. *Men and Masculinities*, 21(1), 72–90. <https://doi.org/10.1177/1097184X16652659>
- Bungum, B., & Kvande, E. (2020). Norway country note. In A. Koslowski, S. Blum, I. Dobrotić, G. Kaufman, & P. Moss (Eds.), *International review of leave policies and research 2020*. <https://www.leavenetwork.org/annual-review-reports/>
- Bünning, M. (2015). What happens after the 'daddy months'? Fathers' involvement in paid work, childcare, and housework after taking parental leave in Germany. *European Sociological Review*, 31(6), 738–748. <https://doi.org/10.1093/esr/jcv072>
- Byun, S.-Y., & Won, S.-Y. (2019). Are they ideological renegades? Fathers' experiences on taking parental leave and gender dynamics in Korea: A qualitative study. *Gender, Work & Organization*, 27(4), 592–614. <https://doi.org/10.1111/gwao.12410>
- Choi, S., Joung, E. H., & Choi, S. (2019a). Experiences of fathers taking paternity leave. *Health and Social Welfare Review*, 39(4), 280–313. <https://doi.org/10.15709/hswr.2019.39.3.280>
- Choi, S., Joung, E. H., & Choi, S. (2019b). Mandatory parental leave for fathers and the emergence of a working dad. *Family and Culture*, 31(4), 1–29. <https://doi.org/10.21478/family.31.4.201912.001>

- Dearing, H. (2016). Gender equality in the division of work: How to assess European leave policies regarding their compliance with an ideal leave model. *Journal of European Social Policy*, 26(3), 234–247. <https://doi.org/10.1177/0958928716642951>
- Deutsch, F. M. (2007). Undoing gender. *Gender & Society*, 21(1), 106–127. <https://doi.org/10.1177/0891243206293577>
- Deutsch, F. M., & Gaunt, R. A. (2020). Past and current research. In F. M. Deutsch & R. A. Gaunt (Eds.), *Creating equality at home: How 25 couples around the world share housework and child-care* (pp. 8–28). Cambridge University Press.
- Doucet, A., Lero, D. S., McKay, L., & Tremblay, D.-G. (2021). Canada country note. In A. Koslowski, S. Blum, I. Dobrotić, G. Kaufman, & P. Moss (Eds.), *International review of leave policies and research 2021*. <https://www.leavenetwork.org/annual-review-reports/>.
- Doucet, A., & McKay, L. (2020). Fathering, parental leave, impacts, and gender equality: What/how are we measuring? *International Journal of Sociology and Social Policy*, 40(5/6), 441–463. doi:10.1108/IJSSP-04-2019-0086
- Duvander, A.-Z., Lappegård, T., Andersen, S. N., Garðarsdóttir, Ó., Neyer, G., & Viklund, I. (2019). Parental leave policies and continued childbearing in Iceland, Norway, and Sweden. *Demographic Research*, 40(51), 1501–1528. <https://doi.org/10.4054/DemRes.2019.40.51>
- Duvander, A.-Z., Lappegård, T., & Andersson, G. (2010). Family policy and fertility: Fathers' and mothers' use of parental leave and continued childbearing in Norway and Sweden. *Journal of European Social Policy*, 20(1), 45–57. <https://doi.org/10.1177/0958928709352541>. <http://esp.sagepub.com>.
- Duvander, A.-Z., & Löfgren, N. (2021). Sweden country note. In A. Koslowski, S. Blum, I. Dobrotić, G. Kaufman, & P. Moss (Eds.), *International review of leave policies and research 2021*. http://www.leavenetwork.org/lp_and_r_reports/.
- Engeman, C., & Burman, S. (2022). Signs of the gender revolution's second phase? Historical and cross-national development of fathers' leave provisions. *Social Policy & Administration*, 1–16. <https://doi-org.gate3.library.lse.ac.uk/10.1111/spol.12882>.
- Evertsson, M., Boye, K., & Erman, J. (2018). Fathers on call? A study on the sharing of care work between parents in Sweden. *Demographic Research*, 39(2), 33–60. <https://doi.org/10.4054/DemRes.2018.39.2>
- Eydal, G. B., & Gíslason, I. V. (2021). Iceland country note. In A. Koslowski, S. Blum, I. Dobrotić, G. Kaufman, & P. Moss (Eds.), *International review of leave policies and research 2021*. <https://www.leavenetwork.org/annual-review-reports/>.
- Fernández-Cornejo, J. A., Escot, L., Del-Pozo, E., & Castellanos-Serrano, C. (2016). Do fathers who took childbirth leave become more involved in their children's care? The case of Spain. *Journal of Comparative Family Studies*, 47(2), 169–191. <https://doi.org/10.3138/jcfs.47.2.169>
- Fraser, N. (1994). After the family wage: Gender equity and the welfare state. *Political Theory*, 22(4), 591–618. <https://doi.org/10.1177/0090591794022004003>
- Goldscheider, F., Bernhardt, E., & Lappegård, T. (2015). The gender revolution: A framework for understanding changing family and demographic behavior. *Population and Development Review*, 41(2), 207–239. <https://doi.org/10.1111/j.1728-4457.2015.00045.x>
- Haas, L., & Hwang, P. (2008). The impact of taking parental leave on fathers' participation in child-care and relationships with children: Lessons from Sweden. *Community, Work & Family*, 11(1), 85–104. <https://doi.org/10.1080/13668800701785346>
- Haas, L., & Hwang, P. (2019). Policy is not enough—the influence of the gendered workplace on fathers' use of parental leave in Sweden. *Community, Work & Family*, 22(1), 58–76. <https://doi.org/10.1080/13668803.2018.1495616>
- Harvey, V. e., & Tremblay, D.-G. (2019). The workplace: Challenges for fathers and their use of leave. In P. Moss, A.-Z. Duvander, & A. Koslowski (Eds.), *Parental leave and beyond* (pp. 223–240). Polity Press. <https://doi.org/10.1332/politypress/9781447338772.003.0013>.
- Hong, S. A. (2018). Men's use of parental leave and the workplace culture. *Gender and Culture*, 11(1), 145–183. <https://doi.org/10.20992/gc.2018.6.11.1.145>

- Hosking, A., Whitehouse, G., & Baxter, J. (2010). Duration of leave and resident fathers' involvement in infant care in Australia. *Journal of Marriage and Family*, 72(5), 1301–1316. <https://doi.org/10.1111/j.1741-3737.2010.00766.x>
- Huerta, M. C., Adema, W., Baxter, J., Han, W.-J., Lausten, M., Lee, R., & Waldfogel, J. (2014). Fathers' leave, fathers' involvement and child development: Are they related? Evidence from four OECD countries. *European Journal of Social Security*, 16(4), 308–346. <https://doi.org/10.1177/138826271401600403>.
- Ito, D., & Todoroki, M. (2021). Evaluating the quality of online survey data collected in 2018 in the USA: Univariate, bivariate, and multivariate analyses. *International Journal of Japanese Sociology*, 30(1), 140–162. <https://doi.org/10.1111/ijjs.12117>
- Kan, M.-Y., & Hertog, E. (2017). Domestic division of labour and fertility preferences in China, Japan, South Korea, and Taiwan. *Demographic Research*, 36(18), 557–588. <https://doi.org/10.4054/DemRes.2017.36.18>
- Kang, H.-K. (2013). Men's experiences of child rearing in parental leave system & change of gender relationship: Through the practice of men's child rearing. *Women's Studies Review*, 30(2), 133–167. <https://doi.org/10.18341/wsr.2013.30.2.133>
- Kim, J. W., & Kwon, J. (2015). A qualitative study on the experience of fathers using parental leave. *Korea Social Policy Review*, 22(3), 265–302. <https://doi.org/10.17000/kspr.22.3.201509.265>
- Kim, S., & Kim, Y. (2015). The effect of fathers' parental leave on gender role attitudes. *Korean Journal of Social Welfare Studies*, 46(4), 285–319. <https://doi.org/10.16999/kasws.2015.46.4.285>
- Kim, Y.-J., & Kim, S. (2019). Relational ethics as a cultural constraint on fathers' parental leave in a Confucian welfare state, South Korea. *Social Policy & Administration*, 54(5), 684–698. <https://doi.org/10.1111/spol.12565>
- Kluve, J., & Tamm, M. (2013). Parental leave regulations, mothers' labour force attachment and fathers' childcare involvement: Evidence from a natural experiment. *Journal of Population Economics*, 26(3), 983–1005. <https://doi.org/10.1007/s00148-012-0404-1>
- Koslowski, A. (2021). Capturing the gender gap in the scope of parenting related leave policies across nations. *Social Inclusion*, 9(2), 250–261. <https://doi.org/10.17645/si.v9i2.3852>
- Koslowski, A., Blum, S., Dobrotić, I., Kaufman, G., & Moss, P. (2021). 17th *International Review of Leave Policies and Related Research 2021*. www.leavenetwork.org/annual-review-reports/review-2021/. <https://doi.org/10.18445/20210817-144100-0>.
- Kotsadam, A., & Finseraas, H. (2011). The state intervenes in the battle of the sexes: Causal effects of paternity leave. *Social Science Research*, 40(6), 1611–1622. <https://doi.org/10.1016/j.ssresearch.2011.06.011>
- Lee, Y. (2022a). Is leave for fathers pronatalist? A mixed-methods study of the impact of fathers' uptake of parental leave on couples' childbearing intentions in South Korea. *Population Research and Policy Review*, 41(4), 1471–1500. <http://dx.doi.org/10.1007/s11113-022-09697-4>.
- Lee, Y. (2022b). Norms about childcare, working hours, and fathers' uptake of parental leave in South Korea. *Community, Work & Family*, 1–26. <http://dx.doi.org/10.1080/13668803.2022.2031889>
- Ma, L., Andersson, G., Duvander, A.-Z., & Evertsson, M. (2020). Fathers' uptake of parental leave: Forerunners and laggards in Sweden, 1993–2020. *Journal of Social Policy*, 49(2), 361–381. <https://doi.org/10.1017/S0047279419000230>
- Marynissen, L., Mussino, E., Wood, J., & Duvander, A.-Z. (2019). Fathers' parental leave uptake in Belgium and Sweden: Self-evident or subject to employment characteristics? *Social Sciences*, 8(11), 312. <https://doi.org/10.3390/socsci8110312>
- Miller, T. (2010). *Making Sense of Fatherhood: Gender, Caring and Work*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511778186>.
- Ministry of Employment and Labour. (2020). 2020 Press release on fathers on parental leave.
- Na, S.-E. (2014). Men's care involves and the construction of equal parenting between genders: Focusing on the experience of parental leave. *Issues in Feminism*, 14(2), 71–112.
- Nakazato, H. (2017). Fathers on leave alone in Japan: The lived experiences of the pioneers. In M. O'Brien, & K. Wall (Eds.), *Comparative perspectives on work-life balance and gender equality: Fathers on leave alone* (pp. 231–255). Springer Open.

- Nakazato, H., Nishimura, J., & Takezawa, J. (2021). Japan country note. In A. Koslowski, S. Blum, I. Dobrotić, G. Kaufmann, & P. Moss (Eds.), *International review of leave policies and research 2021*. <https://www.leavenetwork.org/annual-review-reports/>.
- National Assembly Budget Office. (2019). An analysis of the characteristics and projections of financing for childcare support projects.
- Nepomnyaschy, L., & Waldfogel, J. (2007). Paternity leave and fathers' involvement with their young children: Evidence from the American Ecls-B. *Community, Work & Family*, 10(4), 427–453. <https://doi.org/10.1080/13668800701575077>
- NOSOCO (Nordic Statistical Committee). (2017). Social protection in the Nordic countries: scope, expenditure and financing.
- O'Brien, M. (2013). Fitting fathers into work-family policies: International challenges in turbulent times. *International Journal of Sociology and Social Policy*, 33(9-10), 1–28. doi:10.1108/IJSSP-05-2013-0060
- OECD. (2021a). OECD family database. PF2.1 Key characteristics of parental leave systems. https://www.oecd.org/els/soc/PF2_1_Parental_leave_systems.pdf.
- OECD. (2021b). Time spent in paid and unpaid work, by sex. <https://stats.oecd.org/index.aspx?queryid=54757#>.
- Pailhé, A., Solaz, A., & Tô, M. (2018). Can daddies learn how to change nappies? Evidence from a short paternity leave policy. *Working Papers 240. French Institute for Demographic Studies*.
- Patnaik, A. (2019). Reserving time for daddy: The consequences of fathers' quotas. *Journal of Labor Economics*, 37(4), 1009–1059. <https://doi.org/10.1086/703115>
- Petts, R. J., & Knoester, C. (2018). Paternity leave-taking and father engagement. *Journal of Marriage and Family*, 80(5), 1144–1162. <https://doi.org/10.1111/jomf.12494>
- Pragg, B., & Knoester, C. (2017). Parental leave use among disadvantaged fathers. *Journal of Family Issues*, 38(8), 1157–1185. <https://doi.org/10.1177/0192513X15623585>
- Ray, R., Gornick, J. C., & Schmitt, J. (2010). Who cares? Assessing generosity and gender equality in parental leave policy designs in 21 countries. *Journal of European Social Policy*, 20(3), 196–216. <https://doi.org/10.1177/0958928710364434>
- Reimer, T., Blum, S., Erler, D., & Schober, P. (2021). Germany country note. In A. Koslowski, S. Blum, I. Dobrotić, G. Kaufman, & P. Moss (Eds.), *International review of leave policies and research 2021*. <https://www.leavenetwork.org/annual-review-reports/>.
- Risman, B. J. (2009). From doing to undoing: Gender as we know it. *Gender & Society*, 23(1), 81–84. <https://doi.org/10.1177/0891243208326874>
- Schober, P. S. (2014). Parental leave and domestic work of mothers and fathers: A longitudinal study of two reforms in West Germany. *Journal of Social Policy*, 43(2), 351–372. <https://doi.org/10.1017/S0047279413000809>
- Statistics Korea. (2020). Parental leave statistics (tentative) http://kostat.go.kr/portal/korea/kor_nw/1/1/index.board?bmode=read&aSeq=386975.
- Statistics Korea. (2021). Household finances and living conditions study. https://www.index.go.kr/potal/main/EachDtlPageDetail.do?idx_cd=2762.
- Sullivan, O. (2013). What do we learn about gender by analyzing housework separately from child care? Some considerations from time-use evidence. *Journal of Family Theory & Review*, 5(2), 72–84. <https://doi.org/10.1111/jftr.12007>
- Tamm, M. (2019). Fathers' parental leave-taking, childcare involvement and labour market participation. *Labour Economics*, 59, 184–197. <https://doi.org/10.1016/j.labeco.2019.04.007>
- Tanaka, S., & Waldfogel, J. (2007). Effects of parental leave and work hours on fathers' involvement with their babies: Evidence from the millennium cohort study. *Community, Work & Family*, 10(4), 409–426. <https://doi.org/10.1080/13668800701575069>
- Wall, K., & O'Brien, M. (2017). Discussion and conclusion. In M. O'Brien & K. Wall (Eds.), *Comparative perspectives on work-life balance and gender equality: Fathers on leave alone* (pp. 257–266). Springer Open.
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & Society*, 1(2), 125–151. <https://doi.org/10.1177/0891243287001002002>
- Wray, D. (2020). Paternity leave and fathers' responsibility: Evidence from a natural experiment in Canada. *Journal of Marriage and Family*, 82(2), 534–549. <https://doi.org/10.1111/jomf.12661>

Appendices

Table A1. OLS regression models of housework and childcare by leave uptake and length, additionally controlling for the age of the youngest child.

VARIABLES	(1) Housework	(2) Dev. childcare	(3) Routine childcare
Fathers' leave (baseline: no leave)			
<i>On leave</i>	0.63 (2.10)	2.34 (2.53)	3.00 (2.72)
<i>Have taken short leave (~3 m)</i>	1.83 (1.79)	1.11 (2.16)	2.40 (2.32)
<i>Have taken moderate leave (4~11 m)</i>	3.23* (1.63)	3.56+ (1.97)	3.56+ (2.12)
<i>Have taken very long leave (12~ m)</i>	6.84*** (1.88)	7.04** (2.27)	10.65*** (2.48)
<i>Plan to</i>	2.96* (1.36)	4.23* (1.64)	2.89 (1.76)
Observations	1,025	1,024	1,017
Adj R-squared	0.34	0.19	0.24
[POST-ESTIMATIONS]			
H0: 'Short leave' – 'Plan to' = 0	F (1, 1008) = 0.31 Prob > F = 0.58	F (1, 1007) = 1.63 Prob > F = 0.20	F (1, 894) = 0.03 Prob > F = 0.85
[POST-ESTIMATIONS]			
H0: 'Moderate leave' – 'Plan to' = 0	F (1, 1008) = 0.02 Prob > F = 0.88	F (1, 1007) = 0.09 Prob > F = 0.76	F (1, 894) = 0.08 Prob > F = 0.78
[POST-ESTIMATIONS]			
H0: 'Very long leave' – 'Plan to' = 0	F (1, 1008) = 3.45 Prob > F = 0.06	F (1, 1007) = 1.24 Prob > F = 0.27	F (1, 894) = 8.01 Prob > F = 0.00

Standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.

Controlling for: age, education, monthly income, and working hours of both parents, fathers' gender role attitudes, number of children, and age of the youngest child.

Table A2. OLS regression models of housework and childcare by leave uptake and length, additionally controlling for the age of the youngest child and squared term of age of the youngest child.

VARIABLES	(1) Housework	(2) Dev. childcare	(3) Routine childcare
Fathers' leave (baseline: no leave)			
<i>On leave</i>	0.63 (2.10)	2.34 (2.54)	3.00 (2.72)
<i>Have taken short leave (~3 m)</i>	1.88 (1.79)	1.08 (2.16)	2.29 (2.32)
<i>Have taken moderate leave (4~11 m)</i>	3.32* (1.63)	3.51+ (1.97)	3.33 (2.13)
<i>Have taken very long leave (12~ m)</i>	6.91*** (1.88)	7.02** (2.27)	10.41*** (2.48)
<i>Plan to</i>	2.93* (1.36)	4.25* (1.64)	2.95+ (1.76)
Observations	1,025	1,024	1,017
Adj R-squared	0.34	0.19	0.24
[POST-ESTIMATIONS]			
H0: 'Short leave' – 'Plan to' = 0	F (1, 1007) = 0.27 Prob > F = 0.60	F (1, 1006) = 1.67 Prob > F = 0.20	F (1, 999) = 0.06 Prob > F = 0.80
[POST-ESTIMATIONS]			
H0: 'Moderate leave' – 'Plan to' = 0	F (1, 1007) = 0.04 Prob > F = 0.84	F (1, 1006) = 0.11 Prob > F = 0.74	F (1, 999) = 0.03 Prob > F = 0.87
[POST-ESTIMATIONS]			
H0: 'Very long leave' – 'Plan to' = 0	F (1, 1007) = 3.60 Prob > F = 0.06	F (1, 1006) = 1.19 Prob > F = 0.28	F (1, 999) = 7.38 Prob > F = 0.01

Standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.

Controlling for: age, education, monthly income, and working hours of both parents, fathers' gender role attitudes, number of children, age of the youngest child, and squared term of age of the youngest child.

Table A3. OLS regression models of housework and childcare by leave uptake and length, restricted sample of fathers whose youngest child is five or younger.

VARIABLES	(1) Housework	(2) Dev. childcare	(3) Routine childcare
Fathers' leave (baseline: no leave)			
<i>On leave</i>	2.05 (2.29)	2.19 (2.72)	4.10 (2.94)
<i>Have taken short leave (~3 m)</i>	2.30 (1.86)	0.93 (2.20)	2.45 (2.38)
<i>Have taken moderate leave (4~11 m)</i>	3.50* (1.74)	4.36* (2.07)	4.24+ (2.23)
<i>Have taken very long leave (12~ m)</i>	6.53** (2.13)	6.18* (2.53)	10.32*** (2.73)
<i>Plan to</i>	3.97** (1.39)	4.71** (1.65)	2.89 (1.78)
Observations	912	911	910
Adj R-squared	0.34	0.19	0.24
[POST-ESTIMATIONS]			
H0: 'Short leave' – 'Plan to' = 0	F (1, 896) = 0.64 Prob > F = 0.42	F (1, 895) = 2.33 Prob > F = 0.13	F (1, 894) = 0.03 Prob > F = 0.87
[POST-ESTIMATIONS]			
H0: 'Moderate leave' – 'Plan to' = 0	F (1, 896) = 0.06 Prob > F = 0.81	F (1, 895) = 0.02 Prob > F = 0.88	F (1, 894) = 0.30 Prob > F = 0.58
[POST-ESTIMATIONS]			
H0: 'Very long leave' – 'Plan to' = 0	F (1, 896) = 1.25 Prob > F = 0.26	F (1, 895) = 0.30 Prob > F = 0.59	F (1, 894) = 6.46 Prob > F = 0.01

Standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.
Controlling for: age, education, monthly income, and working hours of both parents, fathers' gender role attitudes, and number of children.

Table A4. OLS regression models of housework and childcare by leave uptake and length, restricted sample of fathers whose youngest child is three or younger.

VARIABLES	(1) Housework	(2) Dev. childcare	(3) Routine childcare
Fathers' leave (baseline: no leave)			
<i>On leave</i>	3.93 (2.59)	2.34 (2.99)	6.52 (3.29)
<i>Have taken short leave (~3 m)</i>	1.53 (2.07)	0.74 (2.40)	2.20 (2.63)
<i>Have taken moderate leave (4~11 m)</i>	5.33* (2.05)	4.01+ (2.37)	5.92* (2.60)
<i>Have taken very long leave (12~ m)</i>	7.24** (2.54)	6.73* (2.93)	9.36** (3.22)
<i>Plan to</i>	4.54** (1.54)	4.60* (1.79)	3.92* (1.96)
Observations	741	740	739
Adj R-squared	0.34	0.18	0.23
[POST-ESTIMATIONS]			
H0: 'Short leave' – 'Plan to' = 0	F (1, 725) = 1.68 Prob > F = 0.20	F (1, 724) = 2.08 Prob > F = 0.15	F (1, 723) = 0.35 Prob > F = 0.55
[POST-ESTIMATIONS]			
H0: 'Moderate leave' – 'Plan to' = 0	F (1, 725) = 0.12 Prob > F = 0.72	F (1, 724) = 0.06 Prob > F = 0.80	F (1, 723) = 0.50 Prob > F = 0.48
[POST-ESTIMATIONS]			
H0: 'Very long leave' – 'Plan to' = 0	F (1, 725) = 1.01 Prob > F = 0.32	F (1, 724) = 0.47 Prob > F = 0.49	F (1, 723) = 2.59 Prob > F = 0.11

Standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.
Controlling for: age, education, monthly income, and working hours of both parents, fathers' gender role attitudes, and number of children.

Table A5. OLS regression models of housework and childcare by leave uptake and length, additionally controlling for whether wife is pregnant.

VARIABLES	(1) Housework	(2) Dev. childcare	(3) Routine childcare
Fathers' leave (baseline: no leave)			
<i>On leave</i>	1.40 (2.12)	2.18 (2.53)	2.81 (2.71)
<i>Have taken short leave (~3 m)</i>	2.01 (1.81)	1.08 (2.15)	2.40 (2.31)
<i>Have taken moderate leave (4~11 m)</i>	2.95+ (1.65)	3.52+ (1.96)	3.35 (2.11)
<i>Have taken very long leave (12~ m)</i>	5.91** (1.89)	7.00** (2.25)	10.25*** (2.46)
<i>Plan to</i>	2.50* (1.37)	4.10* (1.64)	2.68 (1.75)
Observations	1,025	1,024	1,017
Adj R-squared	0.33	0.19	0.24
[POST-ESTIMATIONS]			
H0: 'Short leave' – 'Plan to' = 0	F (1, 1008) = 0.53 Prob > F = 0.47	F (1, 725) = 1.52 Prob > F = 0.22	F (1, 724) = 0.01 Prob > F = 0.92
[POST-ESTIMATIONS]			
H0: 'Moderate leave' – 'Plan to' = 0	F (1, 1008) = 0.08 Prob > F = 0.77	F (1, 725) = 0.07 Prob > F = 0.80	F (1, 724) = 0.08 Prob > F = 0.78
[POST-ESTIMATIONS]			
H0: 'Very long leave' – 'Plan to' = 0	F (1, 1008) = 1.33 Prob > F = 0.25	F (1, 725) = 1.36 Prob > F = 0.24	F (1, 724) = 7.84 Prob > F = 0.01

Standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.

Controlling for: age, education, monthly income, and working hours of both parents, fathers' gender role attitudes, number of children, and wife's pregnancy.

Table A6. OLS regression models of housework and childcare by leave uptake and length, excluding fathers currently on leave.

VARIABLES	(1) Housework	(2) Dev. childcare	(3) Routine childcare
Fathers' leave (baseline: no leave)			
<i>Have taken short leave (~3 m)</i>	2.11 (1.76)	1.22 (2.16)	2.53 (2.31)
<i>Have taken moderate leave (4~11 m)</i>	3.18* (1.61)	3.71+ (1.98)	3.77+ (2.12)
<i>Have taken very long leave (12~ m)</i>	6.17** (1.85)	7.18** (2.28)	10.68*** (2.47)
<i>Plan to</i>	3.63** (1.34)	4.21* (1.65)	3.05+ (1.76)
Observations	880	879	872
Adj R-squared	0.29	0.14	0.18
[POST-ESTIMATIONS]			
H0: 'Short leave' – 'Plan to' = 0	F (1, 865) = 0.57 Prob > F = 0.45	F (1, 864) = 1.48 Prob > F = 0.22	F (1, 857) = 0.04 Prob > F = 0.84
[POST-ESTIMATIONS]			
H0: 'Moderate leave' – 'Plan to' = 0	F (1, 865) = 0.06 Prob > F = 0.80	F (1, 864) = 0.05 Prob > F = 0.83	F (1, 857) = 0.09 Prob > F = 0.77
[POST-ESTIMATIONS]			
H0: 'Very long leave' – 'Plan to' = 0	F (1, 865) = 1.56 Prob > F = 0.21	F (1, 864) = 1.41 Prob > F = 0.24	F (1, 857) = 7.91 Prob > F = 0.01

Standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.

Controlling for: age, education, monthly income, and working hours of both parents, fathers' gender role attitudes, and number of children.

Table A7. OLS regression models of housework and childcare by leave uptake and length, one child.

VARIABLES	(1) Housework	(2) Dev. childcare	(3) Routine childcare
Fathers' leave (baseline: no leave)			
<i>On leave</i>	3.78 (2.86)	2.97 (3.49)	4.49 (3.76)
<i>Have taken short leave (~3 m)</i>	0.27 (2.49)	0.93 (3.05)	-0.42 (3.29)
<i>Have taken moderate leave (4~11 m)</i>	1.04 (2.23)	-1.34 (2.73)	0.48 (2.95)
<i>Have taken very long leave (12~ m)</i>	4.95+ (2.80)	6.22+ (3.42)	11.09** (3.73)
<i>Plan to</i>	3.19+ (1.65)	3.61+ (2.01)	1.83 (2.17)
Observations	561	560	558
Adj R-squared	0.32	0.20	0.24
[POST-ESTIMATIONS]			
H0: 'Short leave' - 'Plan to' = 0	F (1, 546) = 1.16 Prob > F = 0.28	F (1, 545) = 0.68 Prob > F = 0.41	F (1, 543) = 0.40 Prob > F = 0.53
[POST-ESTIMATIONS]			
H0: 'Moderate leave' - 'Plan to' = 0	F (1, 546) = 0.80 Prob > F = 0.37	F (1, 545) = 2.88 Prob > F = 0.09	F (1, 543) = 0.18 Prob > F = 0.67
[POST-ESTIMATIONS]			
H0: 'Very long leave' - 'Plan to' = 0	F (1, 546) = 0.35 Prob > F = 0.55	F (1, 545) = 0.50 Prob > F = 0.48	F (1, 543) = 5.51 Prob > F = 0.02

Standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.
Controlling for: age, education, monthly income, and working hours of both parents, and fathers' gender role attitudes.

Table A8. OLS regression models of housework and childcare by leave uptake and length, more than one child.

VARIABLES	(1) Housework	(2) Dev. childcare	(3) Routine childcare
Fathers' leave (baseline: no leave)			
<i>On leave</i>	-1.12 (3.18)	2.63 (3.67)	1.71 (3.95)
<i>Have taken short leave (~3 m)</i>	4.15 (2.65)	1.13 (3.06)	5.01 (3.30)
<i>Have taken moderate leave (4~11 m)</i>	5.00* (2.45)	8.24** (2.82)	6.37* (3.07)
<i>Have taken very long leave (12~ m)</i>	6.56* (2.62)	6.83* (3.02)	9.72** (3.32)
<i>Plan to</i>	3.19 (2.46)	6.13* (2.84)	6.04* (3.05)
Observations	464	464	459
Adj R-squared	0.33	0.19	0.24
[POST-ESTIMATIONS]			
H0: 'Short leave' - 'Plan to' = 0	F (1, 449) = 0.09 Prob > F = 0.77	F (1, 449) = 1.71 Prob > F = 0.19	F (1, 444) = 0.06 Prob > F = 0.80
[POST-ESTIMATIONS]			
H0: 'Moderate leave' - 'Plan to' = 0	F (1, 449) = 0.34 Prob > F = 0.56	F (1, 449) = 0.35 Prob > F = 0.55	F (1, 444) = 0.01 Prob > F = 0.93
[POST-ESTIMATIONS]			
H0: 'Very long leave' - 'Plan to' = 0	F (1, 449) = 1.11 Prob > F = 0.29	F (1, 449) = 0.04 Prob > F = 0.85	F (1, 444) = 0.83 Prob > F = 0.36

Standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.
Controlling for: age, education, monthly income, and working hours of both parents, and fathers' gender role attitudes.