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Parental Employment at the Onset of the Pandemic: Effects of Lockdowns and Government Policies

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Abstract

The COVID-19 pandemic had disproportionate impacts on women's employment, especially for mothers with school-age and younger children. However, the impacts likely varied depending on the type of policy response adopted by various governments. New Zealand presents a unique policy setting in which one of the strictest lockdown restrictions was combined with a generous wage subsidy scheme to secure employment. We utilize tax records to compare employment patterns of parents from the pandemic period (treatment group) to similar parents from a recent pre-pandemic period (control group). For mothers whose youngest child is aged between one and 12, we find a 1-2-percentage point decline in the likelihood of being employed in the first six months of the pandemic; for fathers, we hardly see any significant changes in employment. Additionally, the decline in mothers' employment rates is mainly driven by those not employed in the month before the lockdown. We also find similar employment patterns for future parents who had no children during the evaluation period. This indicates that the adverse labour market impacts are not uniquely experienced by mothers, but by women in general.

JEL Code: D10; D13; E24
Keywords: Pandemic; Employment; Parental gap; Administrative data.

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1 Introduction

The COVID-19 pandemic triggered sharp declines in economic activities and employment all over the world (e.g., Chetty et al., 2020; Wynne and Balke, 1993). In contrast to previous recessions, the pandemic initially had a larger economic impact on women compared to men (e.g., Albanesi and Kim, 2021; Kugler et al., 2023; Bluedorn et al., 2023). We contribute to the existing literature that documents gender gap in the effects of the pandemic on labour market outcomes by focusing on different-sex parents from New Zealand, which represents a unique policy-setting when compared to other more widely studied countries.

The disproportionate labour market outcomes experienced by women, especially by mothers with school-age or younger children, can be attributed to several economic reasons. First, high-contact service industries (such as hospitality or tourism) typically represented by a higher share of female workers, saw larger employment declines due to the economic shutdowns (Alon et al., 2022). Second, the pandemic prompted school and daycare closures, thereby resulting in an unequal distribution of household activities and child care between men and women. Since mothers typically spend more time in caring for children than fathers do, the increase in home-based childcare needs constrained women's ability to work more than men's (Alon et al., 2022, p. 84).[1] Third, temporary and part-time employment is much more prevalent among women than among men. Non-standard employment contracts are usually at a much greater risk of being terminated during an economic downturn (Petrongolo, 2004). Investigating the economic impact of the pandemic across six different countries, Alon et al. (2022, p. 86) conclude that the "recession is a she-cession, that is, declines in employment and hours worked are larger among women."[2] However, it is also worth noting that the "COVID-19 crisis she-cessions were short-lived" (Bluedorn et al., 2023) and were mainly

[1]For example, Goldin (2022) calculated for the US that childcare time for college-graduated women (including time for education) grew from 8.7 hours per week just shortly before the pandemic to 17.3 hours at the onset of the pandemic.

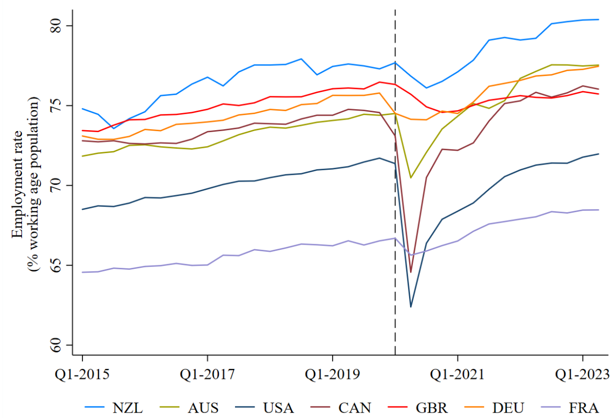
[2]The authors use micro survey data from the following six countries: the United States, Canada, Germany, the Netherlands, Spain, and the United Kingdom

observed during the beginning of the lockdown period.

The policy response from the New Zealand government presents a particularly interesting case to study the impact of the pandemic on parental employment. The government implemented one of the strictest lockdowns compared to other countries in the Western world. Apart from a few exceptions like essential workers, everyone had to be isolated within their own “household bubble”, while in-person interactions with people from outside a residential unit were highly restricted. In addition, all non-essential firm sites had to be closed and switched to remote working. At the same time, the government rolled out high-trust schemes including a generous wage subsidy program extended to firm owners to prevent job losses and business closures. As a plausible result of the New Zealand government’s policy measures, the effect of the pandemic on the country’s labour market has been much less severe relative to other countries which focused more on pandemic-related relief packages and cash transfer programs directly provided to the consumers. This is highlighted in Figure 1, which shows that the drop in New Zealand’s employment rate after the onset of the pandemic was smaller compared to some other major economies from Europe, North America, and Australia. However, despite the mild labour market implications in New Zealand, female workers were disproportionately affected during the pandemic (Kido et al., 2021).

Given New Zealand’s distinct policy setting, we contribute to the pandemic literature by exploring employment gaps between men and women experienced in the island nation during the pandemic. Since changes in the overall employment during the initial pandemic period were less likely to be driven by business-related economic challenges owing to the support of the generous wage subsidy scheme, our analysis provides policy-relevant insights into the underlying mechanisms behind women’s labour market experiences. We particularly focus on parents to explore the pandemic’s effect on the gender gap in employment outcomes. Our study is further motivated by the use of detailed administrative data that allows us to examine the impacts more objectively relative to the other studies in relevant international literature.

Figure 1: Employment rate across countries - 2015-2023



Note: Data accessed from Organisation for Economic Co-operation and Development (OECD). OECD (2024), Employment rate (indicator). doi: 10.1787/1de68a9b-en (Accessed on 20 January 2024)

Several studies have shown that the impact of the pandemic was most noticeable within the first six months for most countries (e.g., Goldin, 2022; Bluedorn et al., 2023). As such, our study looks at parents' employment during the initial months of the post-lockdown period when people were faced with the decision of balancing their time between employment and unpaid work, including childcare and family responsibilities (Cheng et al., 2021; Alon et al., 2020a,b). We consider parents whose youngest child is of ages between 1 and 12, as parental time constraints are possibly more binding for that age group than for older children who are teenagers or young adults (Del Boca et al., 2014; Wikle and Cullen, 2023).

As a possible explanation for the gendered division of labour reallocation between paid work and childcare responsibilities during the pandemic, studies have found evidence of shifts in perceptions, attitudes, and beliefs about gender roles (Danzer et al., 2021; Boring and Moroni, 2023). For example, based on a sample of 1000 individuals from the French working population, Boring and Moroni (2023) show that there was a considerable increase in the share of men, with children aged 12 and below, who believe in traditional gender roles based on a specially designed survey on beliefs about gender roles. The authors find a significant 14-15-percentage point increase in the share of fathers who agree with statements like *"A man's job is to earn money; a woman's job is to look after the home and family"* and *"All in all, family life suffers when the woman has a fulltime job"* compared to pre-lockdown shares.

We utilize Statistics New Zealand's administrative data hub–the Integrated Data Infrastructure (IDI)–to investigate the effect of the COVID-19 lockdown in New Zealand on parental employment. Our identification strategy compares a sample of opposite-sex parents living within the same "household bubble" during the pandemic to a similar sample of couples identified from a pre-pandemic era. We employ a dynamic framework to track how mothers' and fathers' employment evolved over a period around the lockdown month, March 2020–spanning from five months before to five months after the lockdown was implemented. Similarly, for the sample of parents identified from a recent pre-pandemic era (control period), we incorporate a dynamic setting centred around a 'placebo' lockdown month of March 2019. Our empirical approach allows us to control for seasonal variations in employment trends that could additionally influence people's labour market outcomes.

Our results show that relative to the pre-pandemic era, the pandemic shutdown was followed by a statistically significant decline of 1-2 percentage points in the employment propensity for mothers. However, for most fathers, we do not detect any significant differences in the likelihood of being employed between the treatment and control periods. Further stratification reveals substantial drop in the likelihood of being employed for mothers who were non-employed in the month prior to the lockdown period compared to similarly situated mothers from one year prior. To further understand whether the employment declines among mothers differ from the changes experienced by women without children, we study the employment patterns of future parents who were observed to bear their first child in and after 2021–i.e., at least a year later following the onset of the pandemic. Interestingly, the results are largely comparable to that of the actual mothers, indicating that the drop in employment is not uniquely experienced by mothers but instead, also by other women who did not have children during the period of our analysis.

The rest of the paper is organized as follows: Section 2 provides background information on the onset of the pandemic in New Zealand; Section 3 describes the data used and provides descriptive statistics; Section 4 discusses our identification strategy; Section 5 presents our results and the last Section 6 concludes.

2 The New Zealand context

On March 23^{rd} 2020, the New Zealand Prime Minister declared a strict nationwide lockdown from March 26^{th} onward.[3] This announcement came 24 days after the first case of COVID-19 was reported in New Zealand. New Zealand had a particularly strict lockdown relative to other Western countries during the beginning of the pandemic. According to Mathieu et al. (2020), as of the first week of April 2020, the value of the stringency index for New Zealand was 96.3. For context: the stringency index is based on a scale of 0-100 with a higher score indicating a stricter response. In comparison, the respective value stood at 79.6 for the United Kingdom and 72.7 for the United States.

Apart from a few essential services, such as the supply of food and healthcare, most on-site business activities and professional services, including child daycare centres, schools, colleges, and universities, were closed. Furthermore, according to the government's lockdown guidelines, New Zealand residents were required to stay within household-level isolation "bubbles". People could only leave their houses for groceries, healthcare needs, and exercise in their immediate neighbourhood. These rules applied to everyone except for those identified as "essential workers", such as healthcare and grocery workers. Moreover, childcare was available for free for essential workers with children aged up to 13.[4] Aided

[3]See `https://covid19.govt.nz/about-our-covid-19-response/history-of-the-covid-19-alert-system/` ; Accessed on March 15, 2023.

[4]See `https://www.education.govt.nz/news/childcare-available-again-for-w`

by the government's strict border restrictions imposed on international travel, the lockdown restrictions were eventually lifted on June 8, 2020.

In response to the possibility of mass unemployment resulting from the pandemic-induced containment measures, the New Zealand government introduced a large-scale *Wage Subsidy Scheme*.[5] The primary objective of the expansionary fiscal policy was to help firm owners, including self-employed individuals, retain their businesses by financially supporting their staff.

The wage subsidy scheme provided rapid up-front payments to businesses that were affected by the COVID-19 restrictions.[6] An employer was eligible to receive financial support if their revenue was at least 30 percent lower in the prior 30 days compared to a similar period in the year earlier. The government paid out a flat weekly rate of $585.80 per person to full-time workers and $350.00 per person to part-time employees. On average, the full-time rate was around 58 percent of the median weekly earnings in 2019 (Maani, 2021). With total funding amounting to around $13.9 billion, the wage subsidy scheme accounted for almost 4.3 percent of the nation's GDP at the time and supported over 60 percent of the employed workforce (Kido et al., 2021). [7]

3 Data and descriptive statistics

3.1 Data preparation

This research aims to understand how parental employment was affected at the onset of the pandemic in New Zealand. Our identification strategy tracks parental

orkers-in-alert-level-4-businesses-and-services/; Accessed on April 12, 2023.

[5]See https://www.workandincome.govt.nz/covid-19/previous-payments/wage-subsidy-extension.html; Retrieved on March 21, 2023.

[6]Retrieved from Ministry of Social Development. See https://www.msd.govt.nz/about-msd-and-our-work/work-programmes/wage-subsidy-integrity/index.html; Accessed on 19 January 2024.

[7]Retrieved from International Monetary Fund's information on country wise policy responses to COVID-19. See https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19; Accessed on April 12, 2023.

employment spanning from five months prior to the lockdown and five months after the lockdown and compares those employment patterns to the trends observed for similarly situated parents over the same monthly periods from just a year earlier. To that end, our data is divided into two periods - the pre-pandemic period (or the control period) that spans from October 2018 until August 2019; and the pandemic period (or treatment period) spanning from October 2019 through August 2020. Since the pandemic-induced lockdown was enacted and swiftly enforced in the month of March 2020, our analysis is centred around that month $(t = 0)$ in both the control and the treatment periods. Specifically, while March 2020 is the actual lockdown month (the treatment month), we consider March 2019 as our 'placebo' lockdown month.

For our analysis, we utilize data from the Integrated Data Infrastructure (IDI)– a large-scale database hosted by Statistics New Zealand (Stats NZ). The IDI holds a wide range of administrative data collected from different ministries and public agencies such as Inland Revenue, the Department of Internal Affairs, the Ministry of Education, the Census, etc. Information is collected at the individual level and individuals can be linked using a unique confidentialized identifier.

To identify the population of interest, we begin with the Department of Internal Affairs' (DIA) birth records. The DIA birth register documents all births in NZ and contains information such as the child's birth date and gender, as well as identifiers of their parents. This enables us to identify all children born to each parent couple. Additionally, parental identifiers allow individual linkage to other datasets, such as their monthly tax records, which provide labour market information.

We incorporate several steps to refine our sample in order to evaluate an unbiased estimate of the effect lockdown on parental employment gaps. Overall, our sample includes parents whose youngest child is aged between 1 and 12 years old in February 2019/2020.[8] To avoid confounding influences from unobserved

[8]In our analysis, we perform our regression for each age year of the child separately. Note that a child that is, for example, one year old in February 2020 can be between 12 and 23 months old (and so on).

individual-level preferences, we first exclude existing mothers who subsequently gave birth to another child within the next two years from the period of evaluation as their labour market decision might differ from mothers who are not expecting any further children. We then restrict the sample to couples who have, in total, less than four children. We apply this condition since larger families may have different socio-economic conditions and labour market preferences compared to smaller family sizes (Cools et al., 2017). We also exclude half-siblings born to different parents to reduce possible confounding influences of family-specific unobserved complications arising from parental separations.

Next, we use the personal details table to incorporate demographic information. The personal details table is prepared by Stats NZ based on the information retrieved from various population-level administrative data sources included in the IDI. The table documents individuals' demographic information, including birth date, deceased date, ethnicity, and sex. We use information from the personal details table to control for observable characteristics and further homogenise our sample of parents in the treatment and the control periods.

We use the deceased date from the personal details table to remove observations where at least one of the parents was deceased after the birth of the last child within the following two years. Next, we use the parental birth date and restrict the sample to mothers aged between 20 and 40 and fathers aged between 20 and 45 at the birth of the last child.

Ethnicity information from the personal details table is used to create indicators of ethnic identity. Notably, an individual may identify with multiple ethnicities. In New Zealand, ethnicity is often prioritised, i.e. if an individual identifies as both Asian and European, they are noted as Asian, which is prioritised over European. It is worth noting that outcomes may vary substantially across various ethnicities due to cultural, social, and economic differences (Harris et al., 2006; Barnett et al., 2004). Although controlling for ethnic identity in regression models can capture some of the ethnic differences, there may still be unobserved drivers of ethnic disparities that may be correlated with individuals' labour market and health outcomes. Failure to account for such unaccounted heterogeneities may contaminate causal mechanisms. As such, to ensure greater comparability, we restrict our analysis to families where both parents identify only as NZ European ethnicity and have no other ethnic identity. NZ Europeans are the largest ethnic group in NZ.

Next, each family in our sample needs to be comprised of parents and children belonging to a single “household bubble” so that the outcomes can be attributed to choices derived from family-level interactions. This requires us to focus on parents who are not separated during the periods under evaluation. One possible way to achieve this is to use the DIA’s marriage records to restrict our sample to married parents. However, there are two limitations to this approach. First, the share of couples who are married is relatively small in New Zealand. This is largely due to the large prevalence of *de facto* partnerships. In New Zealand, couples in *de facto* relationships have similar legal rights as married couples, including but not limited to regulations governing access to welfare support, immigration policies and uptake of health services. However, *de facto* partnerships are not administratively recorded. Second, even though we can observe the incidence of marriages and divorces until mid-2022, New Zealand law requires a mandatory two-year separation period before someone can seek a dissolution order from the court. Therefore, it is likely that some parents who appear to be married in the data may actually be separated or do not live in the same household.

Our analysis uses the address notification dataset as an alternative indicator of single ”household bubbles”. Stats NZ prepares the dataset and uses multiple administrative sources to identify an individual’s residential location. It provides location information at different geographic levels, with the most granular being on the meshblock level.[9] We focus only on parents who reside in the same location throughout our study periods.

The address notification dataset is also used to derive two additional variables

[9]Meshblock is the smallest geographical area in New Zealand standard geographic classification, representing roughly 30 to 60 dwellings. See `https://vhin.co.nz/guides/geographic-information-in-idi/`; Accessed on April 2, 2023.

in our empirical analysis. First, we create a geographic marker of a family's residential location to account for possible differences in labour market effects across regions with varying levels of population density. This is done by classifying regions into five categories including, Auckland, Wellington, Canterbury (includes Christchurch city), the rest of the North Island, and the rest of the South Island. Second, Atkinson et al. (2019) calculated a social deprivation index for each meshblock using the 2018 Census to represent the economic conditions of families residing in each location. The index ranges between 1 and 10, with 1 being the least deprived and 10 the most deprived. We aggregate this information to form three groups: Index 1-3, 4-6 and 7 and above.

Lastly, the sample was limited to parents who were physically present in New Zealand to participate in the labour market. We use the Ministry of Business, Innovation & Employment's (MBIE) Immigration and visa datasets. The dataset includes administrative data on the movement of individuals across New Zealand's border including migrants, international visitors, and New Zealand citizens. We exclude families where at least one of the members was outside NZ for a minimum of 90 days. We only remove observations where the beginning or end of the overseas spell falls within our period of interest to additionally avoid the possibility of at least one parent being employed overseas. Overseas employment is not captured in the IDI database, but may affect our regression estimates.

Our key research objective focuses on parents' labour market implications from the pandemic-induced lockdown by examining parents' employment status.[10] Parents are linked to the Inland Revenue Employer Monthly Schedule (IR-EMS), which provides monthly information for seven different income sources, including wages and salaries. Parents (mother or father) are considered employed if they receive income from wages and salaries. The IR-EMS data set does not in-

[10]We do not analyse how earnings are affected for several reasons. First, we do not have sufficient data on hours worked, and these might have changed substantially during the onset of the pandemic. Furthermore, employers affected by the COVID-19 restrictions received upfront financial aid from the Wage Subsidy Scheme and passed payments on to staff in wages–however, it is not possible to identify which employee received money from the scheme.

clude information from self-employment. This is collected in a separate dataset; however, the information is only available on the annual level and refers to the fiscal year, which ends in March. We use the relevant IR-IR3 data set to identify income from self-employment for both parents. We then removed families where at least one parent earned \$15 000 per financial year (in 2020 NZ\$ terms), assuming that income from self-employment is a major income source.[11] However, our findings are robust to lowering or increasing the income threshold. Our final sample consists of 71 424 families in the treatment period and 72 510 families in the control period (see also Table A1).

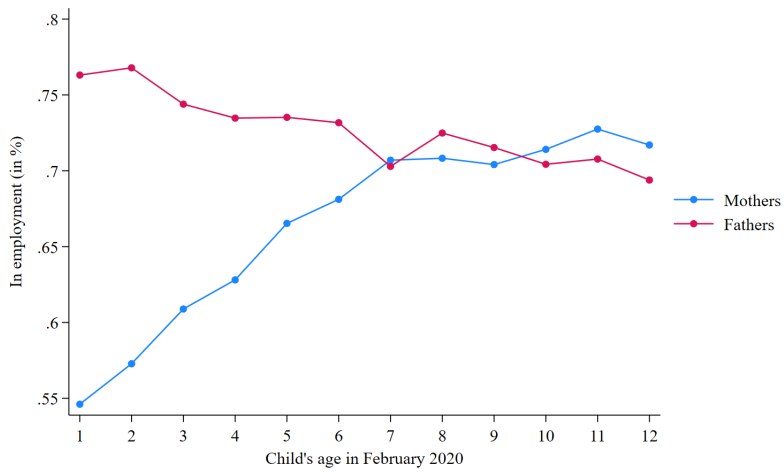
3.2 Descriptive statistics

Figure 2 shows parental employment rate by age of the youngest child in February 2020, the month before the nationwide lockdown was implemented. We observe that the share of mothers who are employed increases with age of the youngest child. For example, about 55% of mothers whose youngest child is one year old received income from wages and salaries in February 2020. This share increases to 71% for mothers whose youngest child is seven years old. However, beyond this age, the increase in mothers' labour market participation is only marginal (e.g., 72% of mothers whose youngest child is 12 years old are employed). This suggests that among mothers, the return into employment as children get older plays a major role. Among fathers, there appears to be no visible trend. In contrast, on average, fathers' labour market participation declines slightly as age of the youngest child increases.

Figure 3 shows parental employment rates, separately for mothers (left graph) and fathers (right graph), for the control period ("2019") and the treatment period ("2020"). The employment rate is indexed at February 2019 and 2020, respectively. For mothers, we observe almost identical employment patterns in the five

[11] As an example, for parents observed between October 2019 and August 2020, we look at income from self-employment in March 2020 (which refers to income from April 2019-March 2020) and in March 2021 (which refers to income from April 2020-March 2021).

Figure 2: Parental employment by the youngest child's age



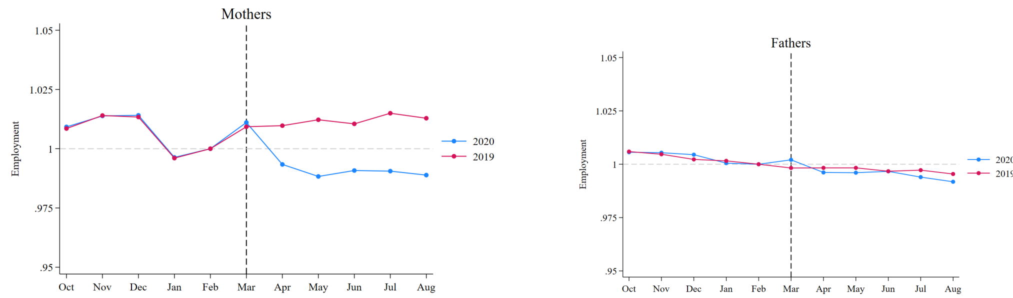
Note: IDI and authors calculations.

months before the start of the pandemic. However, following the onset of the pandemic lockdown, we observe significant differences in employment rates - the employment rate for mothers in the control period is much higher compared to mothers in the treatment period. For fathers, we observe almost identical employment patterns in the five months before the start of the pandemic. However, and in stark contrast to post-March trends observed for the mothers, we observe no differences in the overall employment rate of fathers.

4 Empirical approach

As already highlighted, our identification strategy includes two sets of parents: the pandemic sample (or treatment group) and the pre-pandemic sample (or control group). For each family in the treatment group, we track monthly employment patterns of parents from October 2019 to August 2020. The lockdown month March 2020 is used to divide observations into pre-treatment and post-treatment

Figure 3: Parental employment around the lockdown



Notes: IDI and authors calculations. Employment rate is indexed at February 2019 and February 2020, respectively. The parent's youngest child is between 1 and 12 years old in February 2019 and February 2020, respectively.

periods. Similarly, employment trends of each parent in the control group are observed for the months between October 2018 and August 2019, with the control period centred around March 2019 as the placebo lockdown month. While the control group can be assumed to be unaffected by the pandemic during the period they are examined, our empirical approach allows us to control for possible seasonal variations that could additionally affect parental employment during the pandemic.

The empirical analysis for mothers and fathers is run separately. For our baseline specification, we estimate:

$$y_{it} = \alpha + \beta_1.Post_t + \beta_2.(Post_t \times Pandemic_i) + \mathbf{X'}_{it}\beta_3 + \mu_i + u_{it} \tag{1}$$

such that

$$Post_t = \begin{cases} 1 & \text{if month } t \geq \text{March 2019/2020} \\ 0 & \text{if month } t < \text{March 2019/2020} \end{cases}$$

and

$$Pandemic_i = \begin{cases} 1 & \text{if parent } i \in \text{pandemic sample} \\ 0 & \text{if parent } i \in \text{pre-pandemic sample} \end{cases}$$

The binary outcome variable y is equal to 1 if a parent (mother/ father) receives income from wages and salaries in the respective month, 0 otherwise. The parameter of interest β_2 measures the average difference in employment outcomes between parents in the pandemic sample compared to the pre-pandemic sample.[12] We control for time-varying covariates, which include age (in years) of each parent, the deprivation index at the meshblock level and the region of residence. We also control for individual fixed effects μ_i. Lastly, u_{it} denotes an idiosyncratic error term. This model allows for single coefficients to be estimated for each parent, for each child age category between one and 12 years.

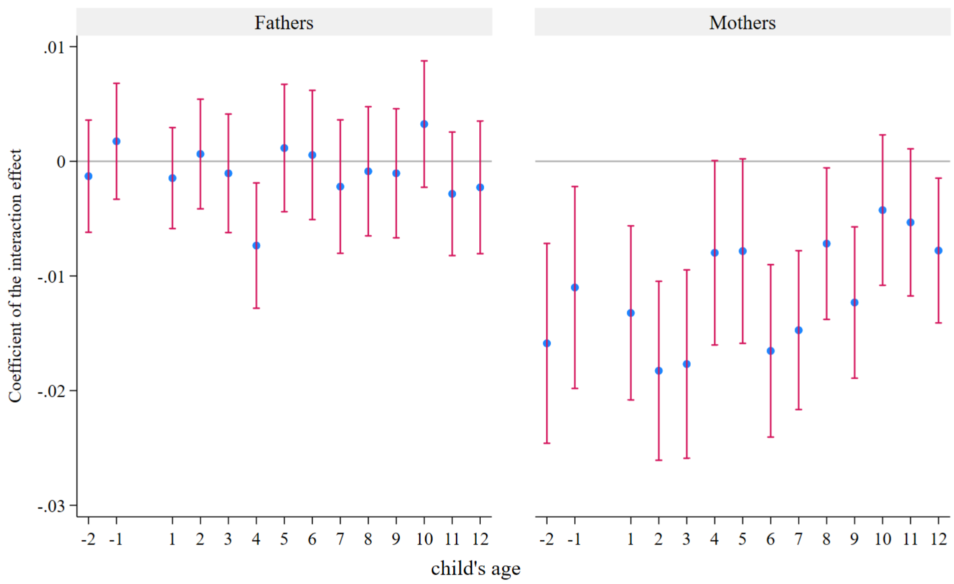
While the model in equation (1) allows us to estimate the average change in employment over pre- and post-lockdown months, we also estimate a dynamic specification to examine the monthly trend of the differences in the employment outcomes between parents in the pre-pandemic and the pandemic sample. More specifically, we estimate:

$$y_{it} = \rho + \sum_{k=-5(\neq -1)}^{+5} \gamma_k T_k + \sum_{k=-5(\neq -1)}^{+5} \theta_k T \times Pandemic_i + \mathbf{X'}_{it}\beta_3 + \mu_i + u_{it} \quad (2)$$

where the parameters represented by γ_k estimate the average likelihood of a parent being employed in each month (k) relative to the lockdown or the placebo month, for each parental sample, respectively. The parameters θ_k estimates the difference between the employment outcomes of parents in each of the two samples for each month (k) relative to the lockdown or the placebo month. The month of February (i.e. $k = -1$) from the pandemic and pre-pandemic period is treated as our reference period and therefore dropped from our analysis. This dynamic analysis allows us to empirically test the parallel trends assumption and verify whether there are any significant anticipatory effects prior to the lockdown month. In all our empirical specifications, we cluster our standard errors at the individual level.

[12] As we apply a fixed effects model, there is no parameter referring to whether the parent belonged to the pandemic or pre-pandemic sample.

Figure 4: Pandemic's impact on parental employment



Note: IDI and authors calculations. The graph shows for fathers (left panel) and mothers (right panel) the likelihood to be employed (and the corresponding 95% confidence interval) during the onset of the pandemic ($t \geq 0$) by the age of the youngest child.

5 Results

We first estimate parental employment status using equation (1), separately for fathers and mothers and for each individual age group of the youngest child (aged from one to 12). Figure 4 plots the estimated regression coefficients of interest ($\hat{\beta}_2$) from equation (1) and the corresponding 95% confidence interval. The left (right) panel refers to changes in fathers' (mothers') employment during the treatment period relative to the control period. Coefficient estimates are presented in Table A2.

The left panel of Figure 4 shows that in most cases, the employment propensity of fathers in the pandemic sample did not differ significantly from that of fathers in the pre-pandemic sample during the post-March months. That is, on average, fathers did not experience any significant decline in their likelihood of being employed during the first six months of the pandemic (March-October 2020).

For mothers (right panel), the pattern appears to be quite different. Mothers in the pandemic sample experience a significant decline in the likelihood of being employed at the onset of the pandemic when compared to similarly situated mothers in the pre-pandemic sample. On average, the magnitude of the decline ranges between one and two percentage points for mothers whose youngest child is aged between 1 and 9 and those who are aged 12. For mothers whose youngest child is either ten or eleven years old, the estimated effect on the likelihood of being employed is not significantly different from zero, although the coefficient remains negative, similar to all other child ages.

Overall, our baseline findings indicate that mothers' labour market participation, especially among those with younger children, declined during the onset of the pandemic while fathers experienced no change. The differences in the estimated effect on each parent's probability of being employed varied across age of the youngest child, which indicates that parental labor market participation or non-work time allocation conversely may not vary monotonically across child ages.

To test how the effects of the pandemic-induced lockdown on parents' employment propensity evolved over time (from the pre-pandemic months to the post-lockdown period), we perform an event analysis with individuals fixed effects (see Eq 2). We run separate regressions for each parent-child age combination. This estimates a monthly series of ten coefficients (θ_k in Eq 2) to represent the dynamic effects of the pandemic on parental employment. Specifically, the coefficients represent the difference in employment propensity between the pandemic sample and corresponding pre-pandemic sample for the four months prior to lockdown period, the lockdown month and five months post-lockdown.

Table A3 (Table A4) presents the coefficients for mothers (fathers) by age of the youngest child. With the exception of a few observations, both the employment propensity for mothers and fathers between the control and pandemic period do not vary significantly when estimated relative to the reference period (February).[13]

Focusing on the initial months of the pandemic, for most child ages (except for when the youngest child is 4 years old) we do not observe any statistically significant variation in the employment likelihood for fathers from the treatment group– this is in line with that of Figure 4. For mothers we find that in the first month of the pandemic ($t = 0$), employment propensity did not change significantly. This is not surprising given that the lockdown was declared around the end of March (March 26^{th}). However, we observe that from April onwards, there was a significant drop in employment for mothers in the pandemic sample. Moreover, the magnitude of the coefficients do not vary largely across the post-lockdown months until August. Thus, we do not find any indications that the drop in mothers employment probability intensified over time.

5.1 Exiting or not-entering employment

The findings so far indicate that during the onset of the pandemic, mothers employment propensity declined while fathers were not significantly affected. Two possibilities may drive our overall results: (i) previously employed mothers exiting employment, or (ii) previously non-employed mothers staying out of the labour force. We empirically test whether one or both groups drive our overall findings.

As discussed earlier, the aim of the wage subsidy scheme was to secure employment and prevent large-scale business closures due to the lockdown restrictions. We split our sample by employment status in the month prior to the lockdown and the placebo month, i.e., February 2019 and February 2020, respectively. We create a binary indicator equal to 1 if either parent were employed at least for one month between March and August of the pre-pandemic and pandemic years

[13]Two exceptions are observed for fathers whose youngest child was aged four and mothers whose youngest child was aged seven. The pre-period coefficients for most months in both the cases are statistically different from zero when compared to the reference month.

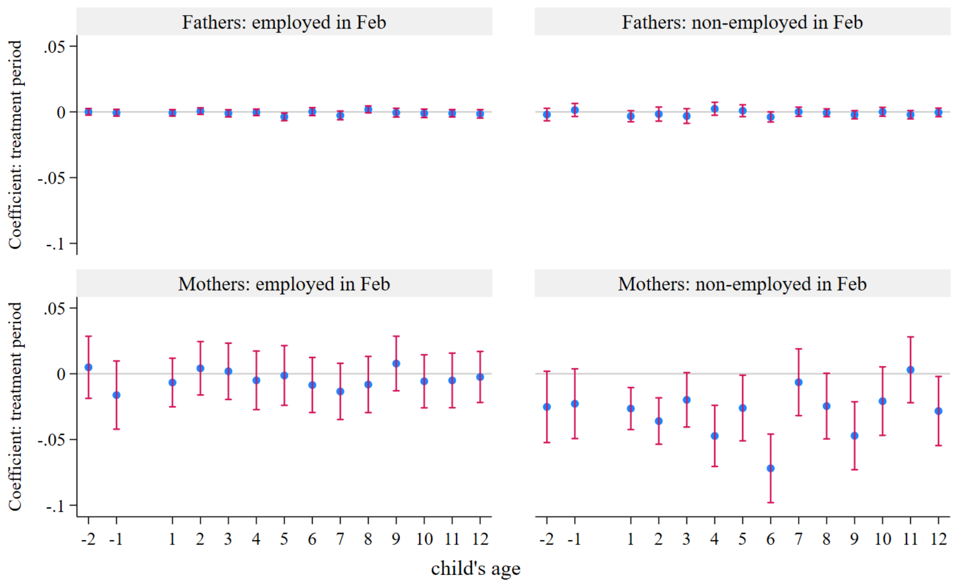
of 2019 and 2020 respectively, 0 otherwise.[14] Table A5 shows the share of fathers/mothers who were employed at least once in the post-March months for the treatment and control group, differentiated by the employment status in the pre-lockdown/placebo month. For parents who were employed in the month of February in 2019 and 2020, the share of individuals who were employed for at least one month in the post-March period were similar between pandemic and pre-pandemic group. This was observed for both mothers and fathers across all child ages. However, among the corresponding fathers who were not employed in the month prior to the lockdown or the placebo month, we see a small drop in the post-period employment share in the treatment period compared to the control period. In the majority of those cases, the drop is below 2 percentage points. For mothers, we observe relatively larger drops among those who were not employed in February 2020 compared to the non-employed mothers in February 2019. The difference between the two groups ranges between two and seven percentage points.

We add to our descriptive analysis by running linear probability models to estimate the likelihood of being employed in at least one of the months in the post-lockdown period, differentiated by the employment status in the month February. In all our regressions, we control for parental age, region, deprivation index, number of siblings and gender of the youngest child. We add a dummy variable to denote the treatment (or pandemic) period. We again run separate regressions for each parent-child age combination. The series of regressions are estimated by the employment status in the month of February (prior to the lockdown and the corresponding placebo month). We report the regression coefficients of interest derived from a total of 48 regressions in Figure 5.

For fathers (top panel), the magnitude of the post-period coefficient appears to be economically small and not significantly different from zero at any conven-

[14]To test the robustness of our marker, we repeated this analysis and measured the outcome variable for (a) whether being employed in August 2019 and August 2020, respectively, and (b) the number of months employed in the $t \geq 0$. The findings do not differ qualitatively and tables can be obtained from the authors upon request.

Figure 5: Employment prospects by initial employment status



Note: IDI and authors calculations. The graph shows for fathers (top panel) and mothers (bottom panel), differentiated by being employed in February (left panel) or non-employed in February (right panel) the coefficient (and the corresponding 95% confidence interval) for the treatment period to be employed at least once in the post-period by the age of the youngest child.

tional level. The statistically insignificant findings persist regardless of the fathers' employment status in the month of February $t = -1$ from the pandemic and the pre-pandemic years. For mothers who were employed at month $t = -1$, we also observe that the likelihood of being employed for at least one month in the period $t \geq 0$ does not differ significantly between the control and treatment samples.

In comparison, when we look at the mothers who were not employed at $t = -1$, we see a statistically significant drop in their employment probability in the post-period. The negative effect varies between two and seven percentage points for those in the treatment period compared to the control period. This effect is statistically significant at the 5 percent level, for seven out of the 12 child age categories, and at the 10 percent level for two further two child age categories. The magnitude of this difference is significant - the average share of mothers who were not employed in February 2019, but had a job for at least one month between March and August 2019, was 17 percent. Relative to that share, a three percentage-point decline in the likelihood of being employed in the post-lockdown months implies a drop of almost 18 percent.

Our additional analysis provides empirical evidence indicating that the decline in employment observed among mothers during the onset of the pandemic is largely driven by an increase of mothers not returning to or entering employment and less so by mothers exiting employment.[15]

5.2 Employment patterns of future parents

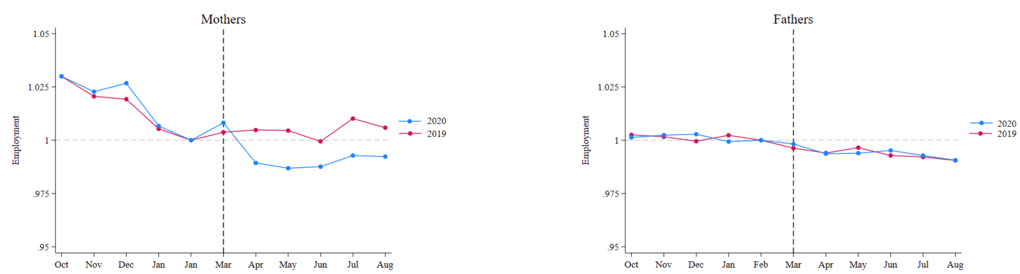
The empirical evidence provided thus far show that during the onset of the pandemic, mothers' labour supply significantly declined compared to similarly situated mothers a year prior; however, we do not find any changes for fathers. One

[15] To explore further mechanisms, we also perform disaggregated analysis by parental education level and prior industry characteristics (e.g., essential versus non-essential sectors). In the disaggregated analyses, the sample size was reduced substantially to provide consistent statistical evidence. However, we do not find any strong evidence of variations in key findings largely hold across educational levels and across industries. The additional results that are not provided for the sake of brevity are available upon further request.

limitation is that we cannot say whether this pattern is uniquely experienced by mothers or whether the decline in employment is also observed among women without children. To shed some light on this aspect, we construct a sample of future parents who did not have any child during the periods studied in our analysis. This sample contains couples who had their first child in 2021 or 2022. With the exception of being parents, we estimate similar empirical specifications adopted earlier in our analysis to future parents.

We calculate the employment share for the five months before and after lockdown and the placebo month to provide context for how lockdown affected the labour supply of future parents. Figure 6 show their employment patterns are largely similar to the trends observed for actual parents in our sample. With the onset of the pandemic, we only observe a visible employment gap between the control and treatment group for the sample of future mothers.

Figure 6: Employment of future parents around the lockdown



Notes: IDI and authors calculations. Employment rate is indexed at February 2019, resp 2020. The parent's youngest child is between -2 and -1 years old in February 2019, resp. 2020.

We repeat our regressions to estimate the magnitude of the change in labour supply of future parents. The coefficients of the interaction effect for the fixed effects linear probability model can be found in Figure 4. Similarly, we do not observe any significant decline in employment likelihood for future fathers for the months March until August between the control and the treatment group. For future mothers, the decline ranges between one and two percentage points for those affected by the pandemic compared to the control period. Moreover, when switching to the dynamic event analysis (Tables A3 and A4), we do not observe any significant differences in the pre-period for both groups of future mothers and for future fathers. However, from April 2020 onwards, there is a significant decline in the post-lockdown months observed only for future mothers. The marginal effects appear to be similar in size when compared to coefficients derived for mothers in our earlier analysis. Further stratification reveals that the number of future mothers not employed in February and not being employed for at least one month in the post-March period ($t \geq 0$) is significantly larger (at the 10% level) for those experiencing the pandemic compared to the future mothers in the control group. These findings indicate that the drop in employment is not uniquely experienced by mothers but the pattern seems to be common across women in general.

6 Conclusion

The employment effects triggered by the COVID-19 pandemic are unlike those observed in earlier economic recessions in the recent past. The economic downturn resulting from the pandemic had disproportionate effects on women's labour supply. As per the existing international literature, these effects seem to be more pronounced for mothers with school-aged and younger children (Goldin, 2022; Alon et al., 2022). The adverse impact of the pandemic on women's labour supply has been attributed to several reasons including large-scale job losses in sectors and occupations that have higher shares of female workers and unequal distribution of household activities. The combined effect of these factors alongside different policies adopted by governments to address a potential economic crisis may have had varying impacts on women's employment outcomes.

New Zealand is one of the few examples where most of the government's pandemic-related economic resources was devoted to financing a generous wage subsidy scheme that supported firms to secure employment of existing employees during the lockdown period. This is in contrast to pandemic-related policies targeted to consumers directly in the form of transfer payments or stimulus checks and expansion of social welfare policies designed for economically vulnerable families.

We find empirical support indicating that the New Zealand government's policy response was comparatively more effective in minimizing the overall employment decline resulting from the lockdown-induced reduction in economic activities. Specifically, our findings provide additional context to the the cross-country comparison based on OECD data presented earlier in the study. We also find suggestive evidence that the employment effects observed for New Zealand mothers were more likely to be driven by changes in family dynamics and/or individual-level choices than by business-related effects and firm closures. This is because firm closures during the pandemic have been found to have affected both male and female labour supply in other countries. For instance, evidence from the US shows that while women experienced larger decline in employment outcomes, employment rates dropped for men (with and without children) too. However in case of New Zealand, we did not find any relevant effects on fathers' employment propensity during the post-lockdown implementation period. In general, the employment effects in our analysis seem to be smaller in size compared to the labour market evidence documented in the current international literature for both men (fathers) and women (mothers).

Our detailed analysis also provides evidence that the relationship between child age and parental labor supply may not be monotonic. For example, we find no relevant effects for mothers when their youngest child is aged between 10 and 11. Such variations in the link between child age and parental labor market outcomes cast doubt on expectations that childcare needs ease for parents as children grow older and become more self-sufficient. As such, our analysis paves the way for future research to explore, with greater detail, the evolution of parent-child interactions and the possible effects of child welfare policies that may influence those interactions.

Our analysis also shows that future mothers who were childless at the time of our analysis also experienced comparable declines in employment. This is in contrast to the findings that show that mothers with especially younger children experienced larger labour market impacts compared to mothers with older children. We also find evidence that the decline in mothers' employment rate was largely driven by non-employed mothers delaying their return to employment rather than employed mothers leaving the labour force.

Finally, our empirical specification and the use of detailed administrative data allow us to address some of the potential concerns associated with the relevant empirical studies in this space. Firstly, we believe the data enabled us to identify a 'household bubble' (or a family unit) with more precision compared to other studies. This is achieved with the help of several detailed administrative data sources with information on birth records and personal life events, address notifications, and international border movements. Unlike studies which rely on large-scale surveys, we are able to estimate the employment gap between fathers and mothers based on individuals belonging to the same family unit. Secondly, our control group included similarly situated parents from a recent pre-pandemic period rather than comparing non-parents who are matched with parents based on observable characteristics. Comparing parents to non-parents may involve selectivity issues as labour supply decisions may vary across families conditional on the presence of a child, individuals' childbearing intentions, and other unobserved preferences. Additionally, our empirical model allows us to control for seasonal variations in employment that could generate additional variations in the post-lockdown employment trends.

Overall, our focus on New Zealand provides an interesting and alternative insight to a well-documented pandemic knowledge base, given its distinct policy setting and detailed data availability. By mitigating the risk of business closures, it is possible that policies that were more specifically designed to prevent mass layoffs in the economy may have reduced the size of the employment gaps observed between men and women during the pandemic.

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A Disclaimer

The results in this paper are not official statistics, they have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by Statistics New Zealand. The opinions, findings, recommendations, and conclusions expressed in this paper are those of the authors, not Statistics NZ.

The results are based in part on tax data supplied by Inland Revenue to Statistics NZ under the Tax Administration Act 1994. This tax data must be used only for statistical purposes, and no individual information may be published or disclosed in any other form, or provided to Inland Revenue for administrative or regulatory purposes. Any person who has had access to the unit record data has certified that they have been shown, have read, and have understood section 81 of the Tax Administration Act 1994, which relates to secrecy. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.

Access to the anonymised data used in this study was provided by Statistics NZ in accordance with security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business, or organisation, and the results in this paper have been confidentialised to protect these groups from identification. Careful consideration has been given to the privacy, security, and confidentiality issues associated with using administrative and survey data in the IDI.

Further detail can be found in the Privacy impact assessment for the Integrated Data Infrastructure available from www.stats.govt.nz.

Table A1: Number of families per child's age

Child's age†	Control period‡	Treatment period*
1	9 855	9 498
2	8 388	8 181
3	6 483	6 420
4	5 688	5 598
5	5 397	5 235
6	5 277	5 166
7	5 496	5 160
8	5 361	5 409
9	5 250	5 343
10	5 217	5 184
11	5 127	5 163
12	4 971	5 067
Total	72 510	71 424

Note: IDI and authors calculations. † as measured in February 2019, resp 2020. ‡ Control period is from October 2018 until August 2019. * Treatment period is from October 2019 until August 2020.

Table A2: Coefficients on the parental employment probability during the onset of the pandemic

	Fathers			Mothers		
Child's age†	Coefficient	Std Err	Obs	Coefficient	Std Err	Obs
-2	-0.001	(0.002)	17 457	-0.016***	(0.004)	17 457
-1	0.002	(0.003)	15 945	-0.011**	(0.004)	15 945
1	-0.001	(0.002)	19 353	-0.013***	(0.004)	19 353
2	0.001	(0.002)	16 569	-0.018***	(0.004)	16 569
3	-0.001	(0.003)	12 903	-0.018***	(0.004)	12 903
4	-0.007***	(0.003)	11 286	-0.008*	(0.004)	11 286
5	0.001	(0.003)	10 632	-0.008*	(0.004)	10 632
6	0.001	(0.003)	10 443	-0.017***	(0.004)	10 443
7	-0.002	(0.003)	10 656	-0.015***	(0.004)	10 656
8	-0.001	(0.003)	10 770	-0.007**	(0.003)	10 770
9	-0.001	(0.003)	10 593	-0.012***	(0.003)	10 593
10	0.003	(0.003)	10 401	-0.004	(0.003)	10 401
11	-0.003	(0.003)	10 290	-0.005	(0.003)	10 290
12	-0.002	(0.003)	10 038	-0.008**	(0.003)	10 038

Note: IDI and authors calculations. † as measured in February 2019, resp 2020. *, **, and *** signify statistical significance at the 10, 5, and 1 percent-levels, respectively.

Table A3: Fixed effects event study model: fathers employment

	Child's age													
t	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12
-5	0.002	-0.004	-0.002	-0.002	-0.001	0.005	0.000	0.001	-0.001	-0.004	0.004	-0.005	-0.001	0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.003)	(0.004)
-4	0.003	-0.001	-0.001	-0.000	-0.001	0.006**	-0.001	0.000	0.002	-0.001	0.005	-0.003	-0.002	0.004
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
-3	0.004	0.001	-0.002	0.000	-0.000	0.006**	0.000	0.001	0.004	0.004	0.006*	0.000	-0.001	0.003
	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
-2	-0.003	-0.002	-0.004**	-0.001	-0.001	0.004**	-0.001	-0.001	0.002	-0.003	0.000	-0.002	-0.002	0.000
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
-1							*reference category*							
0	0.001	0.002	0.001	0.005**	0.003	0.003	0.003	0.005*	0.001	0.006**	0.002	0.001	0.001	0.003
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
1	-0.001	0.000	-0.002	-0.001	-0.004	-0.004	-0.002	-0.001	-0.002	0.000	0.000	-0.001	-0.004	0.001
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
2	-0.002	-0.002	-0.002	-0.002	0.000	-0.004	-0.001	0.000	-0.002	-0.003	-0.000	-0.000	-0.002	-0.003
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
3	0.002	0.002	-0.004	0.003	-0.001	-0.002	0.004	0.003	-0.001	-0.003	0.003	0.005	-0.004	0.000
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
4	0.001	0.000	-0.006*	-0.001	-0.005	-0.005	0.002	-0.001	-0.000	-0.006	0.004	0.002	-0.009**	-0.001
	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
5	-0.001	0.001	-0.006**	-0.002	-0.002	-0.007	0.001	-0.001	-0.001	-0.004	0.002	0.000	-0.008*	0.001
	(0.003)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Obs	17 457	15 945	19 353	16 569	12 903	11 286	10 632	10 443	10 656	10 770	10 593	10 401	10 290	10 038

Note: *, **, and *** signify statistical significance at the 10, 5, and 1 percent-levels, respectively.

Table A4: Fixed effects event study model: mothers employment

	Child's age													
t	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12
-5	0.003	0.001	-0.000	0.001	0.003	-0.005	-0.005	-0.003	0.011**	0.006	-0.006	-0.003	0.002	0.003
	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)
-4	0.004	0.003	-0.002	0.002	0.003	-0.004	-0.006	-0.008*	0.010**	0.000	-0.002	-0.004	0.004	0.006
	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
-3	0.007	0.007	-0.001	-0.000	0.003	-0.004	-0.006	-0.004	0.009**	-0.001	0.002	-0.003	0.005	0.005
	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
-2	0.002	0.001	0.002	0.001	0.005	-0.006*	-0.005	-0.003	0.008**	0.002	-0.004	0.001	-0.003	0.000
	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
-1	*reference category*													
0	-0.001	0.006	0.001	0.002	-0.001	0.003	-0.000	-0.003	0.006*	-0.000	-0.001	0.003	0.004	0.002
	(0.003)	(0.004)	(0.003)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
1	-0.014***	-0.010**	-0.013***	-0.016***	-0.015***	-0.016***	-0.012***	-0.015***	-0.003	-0.006	-0.012***	-0.004	-0.003	-0.005
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
2	-0.016***	-0.013**	-0.018***	-0.026***	-0.021***	-0.017***	-0.014***	-0.025***	-0.008**	-0.011***	-0.016***	-0.010***	-0.005	-0.004
	(0.005)	(0.005)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
3	-0.012**	-0.011**	-0.015***	-0.018***	-0.016***	-0.012**	-0.015***	-0.024***	-0.008*	-0.006	-0.015***	-0.007	-0.004	-0.006
	(0.005)	(0.005)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
4	-0.019***	-0.013**	-0.017***	-0.025***	-0.016***	-0.014**	-0.020***	-0.025***	-0.015***	-0.005	-0.022***	-0.010**	-0.006	-0.007
	(0.006)	(0.006)	(0.005)	(0.005)	(0.006)	(0.006)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)
5	-0.014**	-0.013**	-0.018***	-0.021***	-0.021***	-0.013**	-0.012**	-0.028***	-0.014***	-0.006	-0.022***	-0.009*	-0.008*	-0.009*
	(0.006)	(0.006)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Obs	17 457	15 945	19 353	16 569	12 903	11 286	10 632	10 443	10 656	10 770	10 593	10 401	10 290	10 038

Note: *, **, and *** signify statistical significance at the 10, 5, and 1 percent-levels, respectively.

Table A5: Employment shares by employment status

	Fathers						Mothers					
	Employed at $t=-1$			Non-employed at $t=-1$			Employed at $t=-1$			Non-employed at $t=-1$		
Child's age[†]	Control period	Treatment period	Δ	Control period	Treatment period	Δ	Control period	Treatment period	Δ	Control period	Treatment period	Δ
1	0.994	0.994	0.000	0.136	0.107	-0.029	0.989	0.986	-0.003	0.190	0.162	-0.028
2	0.994	0.995	0.000	0.130	0.122	-0.008	0.983	0.981	-0.002	0.194	0.158	-0.036
3	0.996	0.995	-0.001	0.111	0.109	-0.002	0.986	0.982	-0.004	0.182	0.162	-0.020
4	0.996	0.997	0.001	0.115	0.101	-0.014	0.987	0.990	0.002	0.199	0.151	-0.047
5	0.998	0.994	-0.004	0.117	0.102	-0.015	0.990	0.991	0.002	0.190	0.164	-0.025
6	0.995	0.996	0.001	0.103	0.087	-0.017	0.995	0.991	-0.004	0.210	0.138	-0.072
7	0.996	0.993	-0.003	0.133	0.092	-0.041	0.994	0.994	0.000	0.155	0.149	-0.006
8	0.996	0.998	0.002	0.100	0.097	-0.004	0.996	0.995	-0.001	0.162	0.137	-0.025
9	0.994	0.994	-0.001	0.085	0.097	0.011	0.997	0.994	-0.002	0.181	0.133	-0.048
10	0.995	0.994	-0.001	0.088	0.084	-0.004	0.994	0.995	0.001	0.158	0.136	-0.022
11	0.997	0.996	-0.001	0.093	0.089	-0.003	0.996	0.994	-0.001	0.131	0.134	0.003
12	0.996	0.995	-0.001	0.077	0.079	0.002	0.995	0.995	0.000	0.157	0.128	-0.029

Note: IDI and authors calculations. [†] as measured in February 2019, resp 2020. The table shows the share of fathers/mothers who were employed for at least one month in the months March until August ($t \geq 0$), differentiated by the employment status in February 2019, resp. 2020 ($t=-1$). Δ is the difference between the treatment and the control period.