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Gender and Disability in Parental Employment Outcomes

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Abstract*

This study employs an event study methodology to analyze the overall impact of childbirth, as well as the birth of a child with a disability, on the labor market outcomes of mothers and fathers. We use an annual panel of Chilean labor outcomes based on administrative data from pension and unemployment insurance, as well as data from the National Disability Registry in Chile. The findings reveal a significant gender gap associated with childbirth, which more than doubles in the presence of childhood disability: four years after childbirth, the gender gap in employment increases from 15% to 36% when the child has a disability. Specifically, childhood disability leads to parental specialization, creating an intra-gender gap. Mothers of children with disabilities experience poorer labor market outcomes than mothers of children without disabilities; four years after childbirth, these mothers are 15% less likely to be employed than other mothers. Conversely, fathers of children with disabilities tend to have higher labor market engagement than fathers of children without disabilities. These findings underscore the importance of caregiving policies, both in general and specifically for families of children with disabilities.

JEL classifications: I14, J13, J16, J22, J31, J71

Keywords: Childhood disabilities, Child penalties, Gender gaps

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1 Introduction

There is a significant gender wage gap in Chile, with men earning about 12% more than women from full-time employment, which is similar to the OECD average.¹ Gender disparity is also notable in Chile's employment rates: employment rates for females are nearly 20 percentage points lower than for their male counterparts.

One factor in these gaps is caregiving responsibilities for children with disabilities (CwD). According to the National Disability Service (SENADIS), 5.8% of children in Chile have a disability, corresponding to 230,000 children. However, this number may be underestimated due to the under-registration of disabilities.² Caring for CwD can involve a greater demand for time and higher monetary costs for parents (Anderson et al., 2007; Stabile and Allin, 2012). Becker's theoretical model of household production (Becker, 1965) predicts that parents may reduce their labor supply to provide more care (substitution effect) but may also increase it in response to financial pressures (income effect). This dynamic may lead to greater parental specialization, where fathers focus on paid work while mothers take on extra caregiving responsibilities.

This paper examines how these additional care responsibilities are distributed within families of children with disabilities and how they impact the gender gaps described above. Our analysis explores whether having a child with a disability differentially affects the labor market outcomes of fathers and mothers. Additionally, we investigate the presence of intra-gender gaps, comparing the outcomes of mothers and fathers with children with disabilities to those of other mothers and fathers. Documenting these gaps is relevant for the design of public policies aimed at supporting

¹The gap is even more pronounced when considering measures by the International Labour Organization (ILO), which considers educational levels, participation in public sector jobs versus private sector jobs, and both part-time and full-time workers.

²Martinez-Alvear and Vial (2023) highlights a significant underestimation in the number of individuals with disabilities by comparing data from the National Disability Registry to data collected through household surveys, suggesting that official figures may not fully capture the prevalence of disabilities. This may also be because registration in the National Disability Registry is voluntary.

individuals with disabilities and their families.

There is a substantial literature in developed countries documenting the labor market effects for women of having a child ([Kleven et al., 2019b,a](#); [Kuziemko et al., 2018](#)). [Kleven et al. \(2019b\)](#) document long-run penalties of 21–26% for Denmark and Sweden, 31–44% for the United Kingdom and United States, and 51–61% for Germany and Austria. For Denmark, [Kleven et al. \(2019a\)](#) show that the earnings penalty is roughly equally explained by three margins: labor force participation, work hours, and hourly wages. They also provide evidence that children affect women’s career choices, with women choosing more child-friendly occupations. The literature for developing countries is scarcer, but some recent studies exist for Latin American countries. [Berniell et al. \(2021\)](#) find a long-term loss of 22% in employment, 4% in hours, and 28% in earnings for mothers in Chile. In a more recent study of Chile, Uruguay, Mexico, and Peru, [Berniell et al. \(2023\)](#) find that employment loss for mothers is between 17–20% in all these countries, and they also document shifts in women’s employment towards self-employment and informal jobs.

Other studies specifically address how having children with disabilities affects households. Most of the early empirical literature focused on the effect of children’s disabilities on mothers’ outcomes, finding that children’s disabilities are strongly negatively correlated with mothers’ labor outcomes ([Salkever, 1982](#); [Powers, 2003](#); [Frijters et al., 2009](#); [Wasi et al., 2012](#); [Zhu, 2016](#)). More recent papers use longitudinal and administrative data, employing event analysis methodologies to estimate the causal effect of childhood disability on parental labor market trajectories and household well-being. [Gunnsteinsson and Steingrimsdottir \(2019\)](#), using Danish data, find that the birth of a child with a disability has a strong, permanent, and increasing effect on mothers’ earnings, with an earnings penalty of 13% even 11–15 years after childbirth. The penalty on fathers’ earnings is smaller (3%) but persistent over time. The authors also find significant effects on employment likelihood (for both parents), fertility, and marital dissolution.

For Norway, [Wondemu et al. \(2022\)](#) also find that having a child with a disability adversely affects

mothers' labor outcomes, with more severe conditions triggering worse outcomes. Moreover, the penalty, measured as the difference in outcomes between mothers with children with disabilities and mothers of children without disabilities (CwoD), grows as the child ages. For fathers, having a child with a disability likewise negatively impacts wages, though it does not impact the intensive or extensive labor margin.³ Overall, the literature suggests that mothers bear most of the economic and labor costs of having a child with a disability. As [Gunnsteinsson and Steingrimsdottir \(2019\)](#) point out, governments have an essential role in protecting families by mitigating at least some of these financial and economic burdens.

In the present study, we report a substantial gender gap between mothers and fathers regarding the impact of parenthood on labor outcomes, especially given CwD. Four years after childbirth, we observe that among parents of CwoD, the gender wage gap is 51.6%, the employment gap is 14.7%, and the months worked gap is 24.8%. These gaps are more pronounced for parents of CwD: 36.6% in employment, 65.5% in months worked, and 86.2% in wages. Strong gender gaps are also observed in job composition: after birth, mothers are less likely to hold a formal or permanent job, with more pronounced gender gaps in formality and job stability for parents of CwD. Notably, an intra-gender gap emerges as well: mothers of CwD fare worse in employment outcomes compared to mothers of CwoD, while fathers of CwD tend to work more months and retain higher job stability than fathers of CwoD.

A heterogeneity analysis offers additional insights. Single mothers and fathers of CwD face sharper employment penalties than their married counterparts, with particularly severe penalties for single mothers. Additionally, the level of labor attachment influences these outcomes: mothers of CwD experience higher employment and wage gaps than other groups, highlighting that pre-birth labor stability offers only partial protection against the labor market challenges posed by childhood disability.

³Children's disabilities can also disrupt family dynamics, influencing fertility decisions and sibling outcomes, particularly in education ([Breining, 2014](#); [Black et al., 2020](#); [Eriksen et al., 2023](#)).

This paper contributes to the existing literature by documenting the extent of the child penalty for mothers and fathers of children with disabilities, in the context of a developing country with a modest welfare state. Using administrative data that allow us to capture both formal and informal employment, this focus is essential as most of the literature has concentrated on high-income countries, where resources and safety nets differ significantly from those available in Latin America. The results of gender specialization emphasize the relevance of gender roles in determining parents' labor market outcomes. Single mothers of CwD decrease their labor engagement more than married mothers, and the gender gaps are sizable even among mothers with strong labor attachment. The ultimate goal of our analysis is to provide evidence-based insights to guide policymakers and practitioners in creating effective support mechanisms for families of children with disabilities, preventing long-term socioeconomic decline and promoting resilience.

The rest of this article is organized as follows. Section ?? describes the data used, Section 3 outlines the empirical strategy and describes the study's event design, Section 4 presents the main results, and Section 5 examines the heterogeneities. Finally, Section 6 discusses the study's limitations, summarizes the findings, and presents the conclusions.

2 Data

Sources. This paper uses administrative data obtained from the *Registro de Información Social* (RIS, Social Information Registry), provided by the Chilean *Subsecretaría de Evaluación Social* (Undersecretary of Social Evaluation). The data cover the period from 2013 to 2022. Specific data sources are reported in Table A.1.

We construct a yearly worker-level panel using data from the Unemployment Insurance Administration (*Administradora de Fondos de Cesantía*, AFC) and from the Pension Administrators (*Administradoras de Fondos de Pensiones*, AFP). The AFC data contain labor linkages in the private sector,

while the AFP data include labor linkages in both the private and public sectors. Additionally, data on informal employment are sourced from the Ministry of Social Development and Family (MDSF), specifically from the *Ficha de Protección Social* and the *Registro Social de Hogares*, both used for targeting social policies. These datasets allow us to compute total yearly wages, months worked, whether the job was in the formal or informal sector, and whether formal employment was under a permanent contract. It is important to note that informal jobs may be underreported in our dataset since RSH and FPS data rely on self-reporting—unlike the AFC and AFP records, which are more reliable due to their administrative nature.

Finally, we use the National Disability Registry (RND) data from the Civil Registry, which includes information on each individual’s registration date and type of disability (physical, mental, or sensory). The registry was established in 1994, and our data access agreement includes records up to 2022.⁴ We assign a disability status to a child if their registration occurred within 4 years after birth.⁵

Childbirth events. Using maternal data, we identified the birth events of 927,627 children without disabilities and 7,611 children with disabilities. The figures are 920,048 and 7,613, respectively, for data from fathers. Based on our criteria, this suggests that CwD account for around 0.8% of all births (see Table 1).⁶

Outcomes. The outcome and demographic variables are shown in Table A.2. Employment status is determined using data from the Unemployment Insurance Fund (AFC), Pension Fund Ad-

⁴Law Number 19.284 created the *Registro Nacional de la Discapacidad*. Initial registration standards were based on conditions or deficiencies: visual, auditory, speech, physical, mental, and psychological. In 2012, Decreto 47 modified the registry standards to align with the ICF (International Classification of Functioning, Disability, and Health) criteria, focusing instead on capabilities, as promoted by the WHO.

⁵In previous versions of the paper, we also used a 24-month window and an unrestricted window; results are available upon request.

⁶Table 1 also shows a decline over time in the number of CwD births, both for maternal and paternal data, during the study period. This is a mechanical effect of our child disability identification method, as we assign disability status to children if they are registered in the RND before reaching five years of age. For younger cohorts the time frame for registration is still open, likely leading to an undercount of children with disabilities. Births without disabilities also show a notable decrease, with a reduction of about 31.3% for maternal data and 28.7% for paternal data, reflecting a broader long-term trend of declining birth rates in Chile.

ministrators (AFP), Social Protection (FPS), and Household Social Registries (RSH). Employment is a binary variable, where a value of 1 indicates that the individual was employed for at least one month in the year, but we also measure employment intensity using the number of months worked per year.

We likewise differentiate between individuals holding formal and informal jobs and individuals hired on a permanent rather than temporary or fixed-term basis. Formal jobs are identified with AFC and AFP data, and within this category, we further classify labor contracts as permanent or temporary. Informal jobs are identified through the FPS and RSH data. We construct these same variables, conditional on the individual being employed, to separate the extensive margin from the intensive margin.

Finally, wages are measured in various forms. We calculate total annual wages, as well as wages from formal employment, using the AFC, AFP, FPS, and RSH data. To account for employment status, we also include conditional wage variables, measuring total wages and formal wages only for individuals who were employed.

Rectangularization. To construct a balanced parent-year panel, we fill in gaps in periods where a worker's information is missing from either the formal or informal employment data. Specifically, for years without observed employment, we impute zeros for the labor market variables (employment status, wages, and months worked). When data are available in both AFC/AFP and FPS/RSH, we use labor information from the AFC and AFP datasets.

Table [A.3](#) displays the share of imputed observations for both mothers and fathers, separating those with CwD and CwoD. The data spans from 2013 to 2022, reflecting the portion of missing labor market information that was filled in for each year. ⁷

⁷For mothers of children with disabilities, the share of imputed observations starts at 25% in 2013 and increases to 33% by 2022. Mothers of children without disabilities have a share of 27% in 2013, which remains relatively stable, ending back at 27% in 2022. For fathers, the shares are lower. Fathers of children with disabilities have an imputation share starting at 19% in 2013, which decreases to 12% by 2022. Fathers of children without disabilities start at 22% in 2013 and end at 13% by 2022.

Descriptive statistics. In Table 2, we present descriptive statistics for a baseline period defined as one year before childbirth. The table compares data for parents of children with and without disabilities, structured across four columns: i) mothers of children with disabilities, ii) mothers of children without disabilities, iii) fathers of children with disabilities, and iv) fathers of children without disabilities.

In the demographics panel, parents of CwD tend to be slightly older than those of CwoD, with CwD mothers averaging 26.3 years (compared to 25.6 for CwoD mothers) and fathers averaging 28.3 years (compared to 27.6). The proportion of married parents is similar across groups, with 0.17 (17%) of both mothers and fathers being married. Tertiary education levels are also nearly identical, with 47% of mothers and 36% of fathers of children with disabilities having completed tertiary education, compared to 46% and 39% for parents of CwoD.

Regarding labor force participation, a higher share of CwD mothers are employed (69% versus 65%), and the same is true for fathers (80% versus 78%). Both mothers and fathers of children with disabilities also worked slightly more months in the year prior to childbirth. In terms of job types, parents of CwD are slightly more likely to have permanent contracts and formal employment. However, wages are generally lower for parents of CwD. Mothers of CwD earn an annual total of 3.05 million CLP and fathers earn 4.05 million CLP, compared to 3.50 million CLP for mothers and 4.72 million CLP for fathers of CwoD. This wage gap persists even when focusing only on those employed, with lower wages for both mothers and fathers of children with disabilities.⁸

Additionally, Figure A.1 presents the age distribution of parents at the time of birth. Two key insights emerge: first, fathers tend to be older than mothers (Panels I vs. II); second, comparing subpanels A and B shows that parents of CwD are slightly older than those of CwoD (Subpanels A vs. B).

⁸As noted in A.2 All wages are in millions of CLP. A million CLP were 1,143 USD in 2022, or 2,346 USD under PPP.

3 Empirical Strategy

Following the literature on child penalties, we use an event study approach that exploits the discontinuity that might arise in labor market outcomes for fathers and mothers around the birth of their first child. We define an event as the birth of a couple's first child and examine the differences in outcomes before and after the birth, using a window of 4 years before and 4 years following childbirth.

We use a standard dynamic specification from the literature on child penalties (Kleven et al., 2019a):

$$Y_{ist}^{g,p} = \sum_{j \neq -1} \alpha_j^{g,p} \cdot \mathbb{I}[j = t] + \sum_k \beta_k^{g,p} \cdot \mathbb{I}[k = \text{age}_{is}] + \tau_s + \mu_i + \epsilon_{ist}^{g,p} \quad (1)$$

The outcome variables are labor outcomes for parent i , of gender g , in year s , and the distance to the event t . τ_s and μ_i represent time and individual effects, respectively. $\mathbb{I}[j = t]$ are indicator variables that control for the distance to the event. Following Kleven et al. (2019a), we also include controls for age and year-fixed effects, to control for life-cycle trends and economic cycle trends, respectively. All outcomes are measured in levels.

The superscript g indicates gender (mothers or fathers), while the subscript p denotes the type of event: parents of children with disabilities (CwD) or parents of children without disabilities (CwoD). Thus, gp indexes our four estimation samples: mothers of CwoD, mothers of CwD, fathers of CwoD, and fathers of CwD.

This dynamic specification of a TWFE model would only allow us to obtain causal estimates for child penalties when the only source of heterogeneity is the time since treatment. However, as Sun and Abraham (2021) shows, two-way fixed effects (TWFE) regressions can produce estimates with uninterpretable weights when treatment effects are heterogeneous across cohorts. This could even

lead to apparent pre-trends, even when none exist. In recent years, several authors have proposed alternative estimators that provide robust estimates for causal effects in both static and dynamic settings with staggered treatment timing (Callaway and Sant’Anna, 2021; Sun and Abraham, 2021; Wooldridge, 2021; de Chaisemartin and D’Haultfœuille, 2022; Borusyak et al., 2021). In this paper, we will use the estimator proposed by Callaway and Sant’Anna (2021). As a robustness exercise, we also provide results using the approaches of de Chaisemartin and D’Haultfœuille (2022) and Kleven et al. (2019a) in the Appendix.

In the spirit of Kleven et al. (2019a), we calculate normalized gender gaps (the percentage by which women fall behind men due to having children) and intra-gender gap (the percentage by which parents of CwD fall behind parents of CwoD) as follows:

- Gender gaps: $GP_t^p = (\hat{\alpha}^{\text{Female},p} - \hat{\alpha}^{\text{Male},p}) / \bar{Y} B^{\text{Female},p}$
- Intra-gender gaps: $IGP_t^g = (\hat{\alpha}^{g,\text{CwD}} - \hat{\alpha}^{g,\text{CwoD}}) / \bar{Y} B^{g,\text{CwD}}$
- The normalization is given by $\bar{Y}^G B$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to $t = -1$

Note that the gender penalty captures whether women experience a stronger shock than men after childbirth: the evolution of their outcome (measured by $\hat{\alpha}^{\text{Female},p}$) is evaluated against the evolution of the outcome for men ($\hat{\alpha}^{\text{Male},p}$). We then normalize this gap in terms of the average outcome for women before childbirth. The $\hat{\alpha}$ for parents (both women and men) is estimated using the not-yet-treated parents as the control group. Thus, these gender penalties (if negative) show how much women lose relative to men after childbirth. The normalization in terms of the average outcome for women before the event allows us to grasp the magnitude of the shock. A similar reasoning can be applied to the intra-gender penalty: the evolution of the outcome for parents of CwD (measured by $\hat{\alpha}^{g,\text{CwD}}$) is evaluated against the evolution of the outcome for parents of CwoD (measured by $\hat{\alpha}^{g,\text{CwoD}}$). The intra-gender penalty (if negative) shows how much a mother/father

of a CwD loses relative to a mother/father of a CwoD. Again, the normalization in terms of the average outcome before the event for mothers/fathers of CwD allows us to assess the relative importance of the shock. Note also that gender gaps and intra-gender gaps (especially for women) are expected to have a negative sign.

We also examine heterogeneities based on marital status (single or married) and prior labor attachment by stratifying all our estimations according to these variables. For each subsample, we present the estimated gender and intra-gender penalties.

4 Results

We now present the findings from the event study analysis, which examines the dynamic impacts of childbirth on various outcomes over time. This approach allows us to track the trajectories of key variables, such as employment, wages, and labor force participation after childbirth. By focusing on parents of children with and without disabilities, we can observe any divergent patterns that emerge in the years surrounding childbirth.

We will highlight two key sets of comparisons. As is traditional in the literature, we will first discuss the child penalty by examining the gender gap in labor market outcomes, comparing women and men who are parents of children with and without disabilities. Additionally, we will analyze within-gender comparisons, focusing on mothers and fathers separately. This allows us to explore the intra-gender gap, specifically how having a child with a disability affects labor outcomes for mothers and fathers compared to parents of children without disabilities. As explained above, we estimate the dynamic effects using the [Callaway and Sant’Anna \(2021\)](#) approach.

Results for both gender and intra-gender gaps are presented in Figures 1 to 4 and in Table A.4. Table A.5 presents the estimated coefficients ($\alpha_j^{g,p}$), while Figures A.2 to A.5 plot the estimated normalized coefficients. These normalized coefficients are estimated as $\hat{\alpha}_j^{g,p} / \bar{Y}_B^{g,p}$, where $\bar{Y}_B$ is the

average of the outcome for each group G at period B , with B set to -1 .⁹

All figures for the gender and intra-gender gaps follow the same structure. In Panel I, we plot the gender gap, measured as the difference between female and male outcomes and expressed as a percentage of female outcome in year $t-1$ (the year before childbirth), normalized to the year before childbirth. We run the analyses separately for parents of children with and without disabilities. In Panel II, we display the intra-gender gap, which represents the difference in outcomes for mothers or fathers of children with and without disabilities, as a percentage of the outcomes for parents of children with disabilities, normalized to the year before childbirth. Each column presents the specific labor market outcome being analyzed.

Gender gaps. Figure 1, Panel I-A, shows the gender gap in the probability of being employed, while A.2 presents the employment profile for women and men before and after the birth of children with and without disabilities. Before childbirth, there is no trend in employment outcomes. However, in the year of childbirth, there is a sharp decrease in employment for both fathers and mothers. The effect is stronger for women, and we observe a sharp increase in the gender employment gap: 13% for parents of CwoD and 15.2% for parents of CwD (point estimates are also presented in Table A.4). This gap continues to grow steadily for parents of CwD, reaching 36.6% four years after childbirth. In contrast, for parents of CwoD, the gap peaks at 16.6% in the third year after childbirth and then decreases to 14.7% by the fourth year.

A similar, yet more pronounced pattern is found in months worked (Panel I-C): in the year of birth, the gender gap is 13.3% for parents of CwoD but only 7.2% for parents of CwD. By Year 4, these gaps reach 61.5% and 24.8%, respectively, indicating that women are not only less likely to work, but, if employed, they are more likely to work sporadically.

Furthermore, women fall behind men regarding the likelihood of holding a permanent contract or formal job (see Figure 2). After childbirth, mothers of CwoD are less likely to hold formal jobs

⁹Additionally, Table A.6 shows the normalized coefficients.

(or more likely to work in informal jobs), which helps maintain their overall employment rate. This aligns with [Berniell et al. \(2023\)](#), who noted that informal employment mitigates the decline in mothers' employment. When analyzing conditional outcomes (i.e., the probability of holding a formal job if employed; see Figure 3), it becomes evident that the birth of a CwD not only pushes mothers out of the labor market but, if they are employed, it also steers them away from formal jobs.

Figure 4, Subpanel A, illustrates the effects on wages. Similar to the employment outcomes, we observe that gender wage gaps are more significant for parents of CwD (see Panel I). The wage gap reaches 91% three years after birth for parents of CwD, compared to 51.6% for parents of CwoD. Figure 4, Subpanel B, plots the gender wage gaps conditional on being employed. By Year 4, these gender gaps are similar for parents of CwD and CwoD, though their trajectories differ. For instance, from birth to Year 3, mothers of CwD experience a gap (relative to fathers) of around 60%; this decreases to 46% in Year 4. Conversely, for mothers of CwoD, the gender gap starts at approximately 56% at birth, drops to 43% the following year, and stabilizes around 30% thereafter. Overall, these results highlight how the birth of a CwD exacerbates gender inequalities in the labor market, impacting mothers more severely in terms of employment, work stability, and earnings, particularly in informal sectors. Mothers of CwD encounter a double gap: in addition to reduced labor market participation, those who remain employed are more likely to occupy informal, lower-paid positions.

Intra-gender gaps. In Panel II of Figures 1 to 4, we present the intra-gender gap, comparing all outcomes for mothers (or fathers) of children with and without disabilities. This approach leverages the quasi-random nature of having a child with a disability, thus providing a more reliable basis for isolating the effect of children's disability on labor market outcomes. By focusing on differences within mothers/fathers based on their children's disability status, we minimize the confounding gender-specific labor market dynamics that would arise in direct mother-to-father

comparisons. This comparison thus strengthens the causal inference of disability-related penalties in employment, job stability, and wages for parents. Additionally, comparing intra-gender penalties for mothers and fathers allows us to assess the extent to which task specialization arrangements occur within couples.

In Figure 1, Panel II shows that fathers of children with disabilities are more engaged in the labor market than fathers of children without disabilities across all margins: they are more likely to be employed, and they work more months per year. The gap in the probability of employment reaches 8.1% three years after childbirth, while the gap in months worked reaches 18.1% in the same year. The intra-gender gap for women in employment outcomes is small at childbirth (2% in the probability of employment and 2.6% in months), but it progresses rapidly. The employment gap for mothers widens to 15.3% in the probability of employment and 16.8% in months worked by the fourth year after childbirth. This pattern is consistent with gender specialization in care: mothers are bearing a higher cost of caring for children with disabilities.

In Figure 2, we present the intra-gender gaps for the probability of having a permanent contract or a formal job. Fathers of children with disabilities are more likely to hold permanent and formal jobs than fathers of children without disabilities. In contrast, mothers of children with disabilities are less likely to have permanent contracts, formal jobs, and informal jobs. These comparisons highlight how mothers of CwD experience lower levels of labor market engagement and job quality (measured by formality and permanent contracts) across all dimensions. On the other hand, the fathers of these children are more likely to have formal and permanent contract jobs.

When evaluating intra-gender gaps conditional on working (Panel II in Figure 3), we see an intra-gender gap for both women and men that is small in magnitude and mostly statistically significant. If anything, conditional on working, both women and men with CwD are more likely to hold permanent and formal jobs. All the differential effects of having a child with a disability, compared to having a child without disability, are on the the unconditional probability of being employed.

If women or men choose to keep working, no differential effects are found for either gender based on the disability status of their newborns.

Figure 4 plots the intra-gender penalties for unconditional and conditional wages. For mothers, the estimated gaps are noisy, but surprisingly positive when statistically significant. As shown in Figure A.5, mothers experience a drop in wages of almost 50% in Year 0, but there are no important differences between mothers of children with and without disabilities. A similar pattern is found for conditional wages. However, as discussed above, there is an important intra-gender penalty in employment outcomes for mothers. So, if mothers of children with disabilities are hurt in their employment prospects relative to mothers of children without disabilities, but not hurt as much in their annual wages, they are compensating for the intensive and extensive margin with higher piece-rate wages.

On the contrary, both conditional and unconditional intra-gender wage gaps are positive and statistically significant for fathers. This comes from fathers of CwD slightly increasing their wages right after childbirth (see Figure A.5), while fathers of CwoD experience a decreasing wage profile, with wages by Year 4 being 25% lower.

Robustness. In Figure A.6 we show that using alternative estimators, such as those in [de Chaisemartin and D’Haultfoeuille \(2022\)](#) and [Kleven et al. \(2019a\)](#), does not provide additional insights compared to our choice of estimator in [Callaway and Sant’Anna \(2021\)](#).

5 Heterogeneity

In this section, we examine whether the observed effects vary based on parents’ characteristics before their first childbirth. Specifically, we analyze how employment and wage gaps evolve depending on the marital status of the parents and their initial levels of labor market attachment. Labor attachment is defined as a binary variable, taking a value of 1 if the person was employed in

the two years preceding childbirth (i.e., in Years $t = -1$ and $t = -2$). By exploring these factors, we aim to assess whether childhood disability differentially impacts the labor trajectories of mothers and fathers depending on their initial characteristics.

As before, we present gender and intra-gender gaps in Figures 5 to 8 for marital status and in Figures 9 to 12 for labor attachment. We also present the normalized coefficients from our estimation to show the estimated evolution of outcomes in all these samples in Figures A.8 to A.13.

Marital status. There are strong differences in the gender gaps depending on the marital status of parents.

For single parents (both women and men), the probability of employment decreases after childbirth for parents of both CwD and CwoD (see Figure A.7). However, as observed in the pooled sample, this decline is much steeper for women, causing the gender employment gap between women and men to jump to 14% in Year 0, regardless of the child's disability status. For single mothers of CwoD, this gap then remains relatively stable, whereas it widens to 34% for mothers of CwD (Figure 5). A similar pattern is observed in months worked and wages. Among single women who continue working (Figure 6), by Year 2 there is an increase in the likelihood of leaving permanent and formal jobs: for single mothers of both CwD and CwoD, the employment gender gap in the probability of holding a permanent job reaches around 20% by Year 4, although it is larger for mothers of CwD in Years 2 and 3 before stabilizing. A similar effect is seen in the likelihood of holding a formal job. This may be explained by the fact that single men with CwD, on the contrary, increase their probability of working in permanent and formal jobs, whereas single men with CwoD do not show changes in job composition (in terms of stability or formality).

Regarding the intra-gender gap, single women with CwD experience a sharp decline (relative to single mothers of CwoD) by Year 2, and the intra-gender gap in employment and months worked widens. For wages, the estimated intra-gender gaps are noisy; they are statistically significant and negative for Year 1, but they decrease and become positive afterward. However, the intra-

gender gap in conditional employment outcomes follows an interesting pattern, as after Year 1 both women and men with CwD are more likely (relative to parents of CwoD) to hold permanent jobs.

Gender gaps for married women and men with CwoD in the extensive margin are quite small, ranging from -5% at Year 0 and even showing a positive margin of 2.5% at Year 4 (see Figure 7). However, large gender gaps are found in months worked (the gender gap for women with CwoD grows from -5% in Year 0 to 22% in Year 4) and in total wages (gaps are between 60-80%). Conditional labor outcomes are extremely noisy. Conditional on working (Figure 8), married women are less likely to have formal jobs and less likely to have a job with a permanent contract. They also experience large gaps in wages. Gender gaps in conditional wages are around 50%.

The highest gender gap is found for married women with CwD, who experience drops in the probability of employment of around 50% by Year 3, relative to women with CwoD (20%). This generates a large intra-gender gap in employment at birth (8%), which grows to almost 30% by Year 4. Conversely, intra-gender gaps for men are the opposite: from birth, they favor fathers with CwD, who, after birth, work more than fathers of CwoD. They are not, however, more prone to hold permanent or formal jobs. Their profile (Figure A.9) for the probability of holding a formal and permanent job, as well as that for conditional wages, is almost flat, independent of child disability status. Whatever fathers of CwD do to improve their relative wages (see Figure 4) compared to fathers of CwoD is not related to job composition or quality: they simply work more.

In short, single women and men experience a decline in employment rates and months of work after childbirth, but women, especially single mothers of CwD, experience a sharper decline. Thus, both gender and intra-gender gaps increase. Women decrease their permanent and formal jobs. For men, on the contrary, the employment penalties are smaller, and intra-gender gaps favor men with children with disabilities. Fathers of CwD experience a favorable wage gap.

The analysis reveals that gender gaps are most pronounced among single women, especially those

who have children with disabilities. Single mothers of CwD face sharper declines in employment rates and months worked, which increases both gender and intra-gender gaps. They are also more likely to leave permanent and formal jobs, though, by Year 4, those who remain employed are slightly more likely to hold permanent and formal positions compared to mothers of children without disabilities. In contrast, men experience smaller employment penalties, and fathers of CwD even gain advantages in relative wages compared to fathers of CwoD, likely due to working more hours rather than changes in job composition. For married parents, gender gaps in employment probabilities are smaller, particularly for those with CwoD. However, large gender gaps persist in the number of months worked and total wages, especially among married women. Married women with CwD face the steepest drops in employment probability, resulting in substantial intra-gender gaps in employment relative to married women with CwoD. Conversely, for men, the intra-gender gap favors fathers of CwD, who work more hours post-birth, although job quality and composition remain stable regardless of child disability status.

Labor market attachment. We now explore the differences in employment and wage outcomes after childbirth for parents with high vs. low labor attachment. We loosely classify attachment as having worked two full years before the birth of a child.

There is a distinct employment and wage pattern that is particular to individuals with low labor attachment. Mothers and fathers with low labor attachment and with CwoD have a relatively flat profile in all labor outcomes until Year (-2), after which employment and wages increase starting in Year (-1). That is, there is some anticipation of a need for increased income, which might be consistent with looking for a job right after birth or during pregnancy (see Figure [A.11](#)). The profile for parents of children with and without disabilities is similar. However, women's employment and wage outcomes increase less than men's, and therefore the gender gap for women increases: the gender gap is already 20% against women by Year 0, and it reaches 25% by Year 4. For labor outcomes, intra-gender gaps for men and women are noisy, and most of the coefficients are not statistically significant. We cannot evaluate the effect on conditional outcomes for low-attachment

individuals, as we would end up with very small sample sizes. We can, however, evaluate unconditionally the probability of working formally or in a job with a permanent contract. Overall, we find again that women, regardless of the disability status of their children, are relatively less likely to work in formal and permanent jobs. But these gender gaps are slightly bigger for women with CwoD (see Figure ??).

Among parents with high labor attachment (see Figures 11 and 12), the highest gender employment gaps are found for mothers with CwD: the gender gap increases from 13% at birth to almost 40% by Year 4. This is also observed in months worked, although the gap is even higher, reaching around 75% by Year 4. Employment gaps for women with CwoD are smaller, almost half. This generates a significant intra-gender gap for women: from almost zero at birth to 17% by Year 4.

Gender gaps are also evident when evaluating penalties in permanent employment for women with strong attachment to the labor market. These women, if working, shift away from permanent employment and towards informal jobs. The shift away from permanent employment is similar for mothers of children with and without disabilities, while the effect on informality is stronger for the former group. This generates a similar intra-gender gap for both women and men in permanent employment (conditional on working), but there is a strong difference between women and men in the intra-gender gap in informal employment, which favors women (a very imprecise estimate).

Regarding wages, for mothers and fathers with low labor attachment and children without disabilities, total wages increase after childbirth; however, the increase is again smaller for mothers, widening the gender wage gap. At the year of birth (Year 0) the gap stands at around 20%, expanding to approximately 37% by Year 4. For mothers and fathers of children with disabilities, there is a similar pattern, but the wage gap is higher—around 50% by Year 4.

All mothers and fathers with strong attachment to the labor market experience large wage losses after childbirth, but losses are higher for mothers and fathers of children with disabilities. Women lose the most: for women with CwD, the gender wage gap is as high as 70%. Gender gaps in

conditional wages do not go away; they remain high (in the vicinity of 35-40%) by Year 4 and are even higher at birth. That is, the analysis of conditional wages reveals that total wage losses are only partly due to worse employment outcomes (these women are less likely to work and work fewer months), but also due to worse jobs in general (jobs that are not permanent and have smaller wages). Overall, mothers with a strong attachment to the labor market, if working, are likely to experience stagnation in wage growth relative to fathers, especially when their children have disabilities. This stagnation contributes to a marked gender wage disparity among mothers of children with disabilities, especially for those with high labor attachment, leading to a persistent gap in total and conditional wages. The gender gap in conditional wages for mothers of CwD is fueled partly by the fact that even though mothers experience decreasing conditional wages, fathers' conditional profiles are almost flat (see Figure [A.14](#)).

Intra-gender wage gaps are positive, as wages for fathers and mothers of CwD drop at a smaller rate, meaning that parents with a strong attachment to the labor market are potentially compensating for the higher costs of having a child with a disability. The intra-gender gaps for conditional wages are smaller for men (10 pp smaller) than for the unconditional ones, consistent with fathers of CwD almost not altering their employment after birth. However, for women, the intra-gender wage gap for conditional wages is similar in magnitude to the unconditional ones.

6 Conclusion

In this paper, we demonstrate significant impacts of childbirth on labor market outcomes, with marked differences between parents of children with and without disabilities. Gender gaps in employment, wages, and labor force participation grow considerably after childbirth, with mothers facing greater disadvantages than fathers. The data show that the birth of a child with a disability exacerbates these disparities, particularly for women. Mothers of children with disabilities experience a sharper decline in employment and an increase in informal, unstable job positions,

compared to mothers of children without disabilities. This effect is larger for single mothers and mothers with high pre-birth labor attachment.

The intra-gender analysis further highlights how mothers and fathers experience divergent labor market outcomes based on the presence of childhood disability. Fathers of children with disabilities tend to remain more attached to the labor market, in formal jobs with permanent contracts. Meanwhile, mothers of children with disabilities are more likely to reduce their labor participation or shift into informal work, which often offers lower wages and less job security. This suggests specialization of roles within families, where mothers bear a greater burden of caregiving responsibilities.

Overall, the findings emphasize the compounded disadvantage that mothers of children with disability face. Intra-gender gaps show that mothers experience significantly more severe labor market penalties compared to fathers. These results underscore the need for policies that support parents of children with disabilities, especially mothers of children with disabilities, to reduce these inequities and provide better opportunities for long-term labor market engagement.

Tables

Table 1: Frequency of Events

	(1)	(2)	(3)	(4)
	Mothers		Fathers	
Year	Children with disabilities	Children without disabilities	Children with disabilities	Children without disabilities
2013	0.52	109.16	0.50	105.92
2014	0.62	111.37	0.61	109.04
2015	0.74	106.17	0.73	103.84
2016	1.00	98.34	0.99	96.53
2017	1.38	89.97	1.33	89.39
2018	1.42	91.12	1.48	92.66
2019	1.11	89.17	1.16	89.16
2020	0.52	84.17	0.54	84.18
2021	0.23	73.22	0.24	73.83
2022	0.06	74.93	0.05	75.50
Pooled	7.61	927.63	7.61	920.05

Note: Number of childbirths by year in thousands. Columns (1) and (2) show number of mothers. Columns (3) and (4) show number of fathers. Columns (1) and (3) show childbirths of children with disabilities, while Columns (2) and (4) show childbirths of children without disabilities. Childhood disability corresponds to children registered at RND before they were 5 years old.

Table 2: Descriptive Statistics

	(1)	(2)	(3)	(4)
	Mothers		Fathers	
	Children with disabilities	Children without disabilities	Children with disabilities	Children without disabilities
Demographics				
Age	26.34	25.57	28.28	27.65
Married	0.17	0.16	0.17	0.17
Tertiary education	0.47	0.46	0.36	0.39
Labor force participation				
Employed	0.69	0.65	0.80	0.78
Months worked	5.27	5.03	6.24	6.21
Job type decomposition				
Permanent contract	0.40	0.38	0.50	0.48
Formal job	0.64	0.61	0.75	0.73
Conditional job type				
Permanent contract	0.54	0.52	0.60	0.59
Formal job	0.93	0.93	0.94	0.93
Wages				
Total wages	3.05	3.50	4.05	4.72
Conditional wages	3.96	4.54	4.89	5.69

Note: This table shows demographic characteristics and labor outcomes of parents 1 year before childbirth. Wages are in millions of CLP. Conditional job types and conditional wages are averages of employed individuals. Columns (1) and (2) show outcomes of mothers while Columns (3) and (4) show outcomes of fathers. Columns (1) and (3) show outcomes of parents of children with disabilities; Columns (2) and (4) show outcomes of parents of children without disabilities. Childhood disability corresponds to children registered at RND before they were 5 years old.

Figures

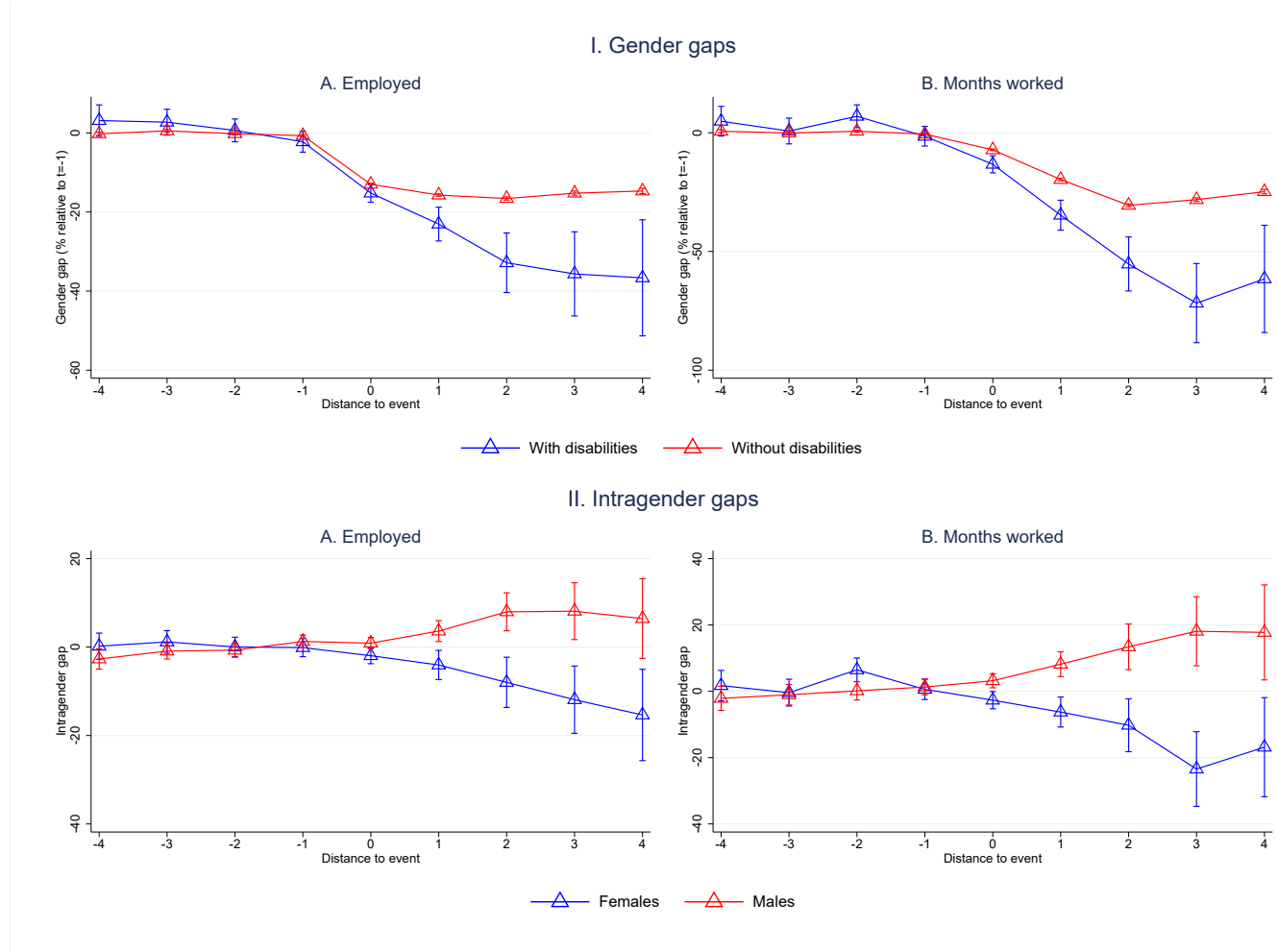


Figure 1: Labor Force Participation

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Male}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

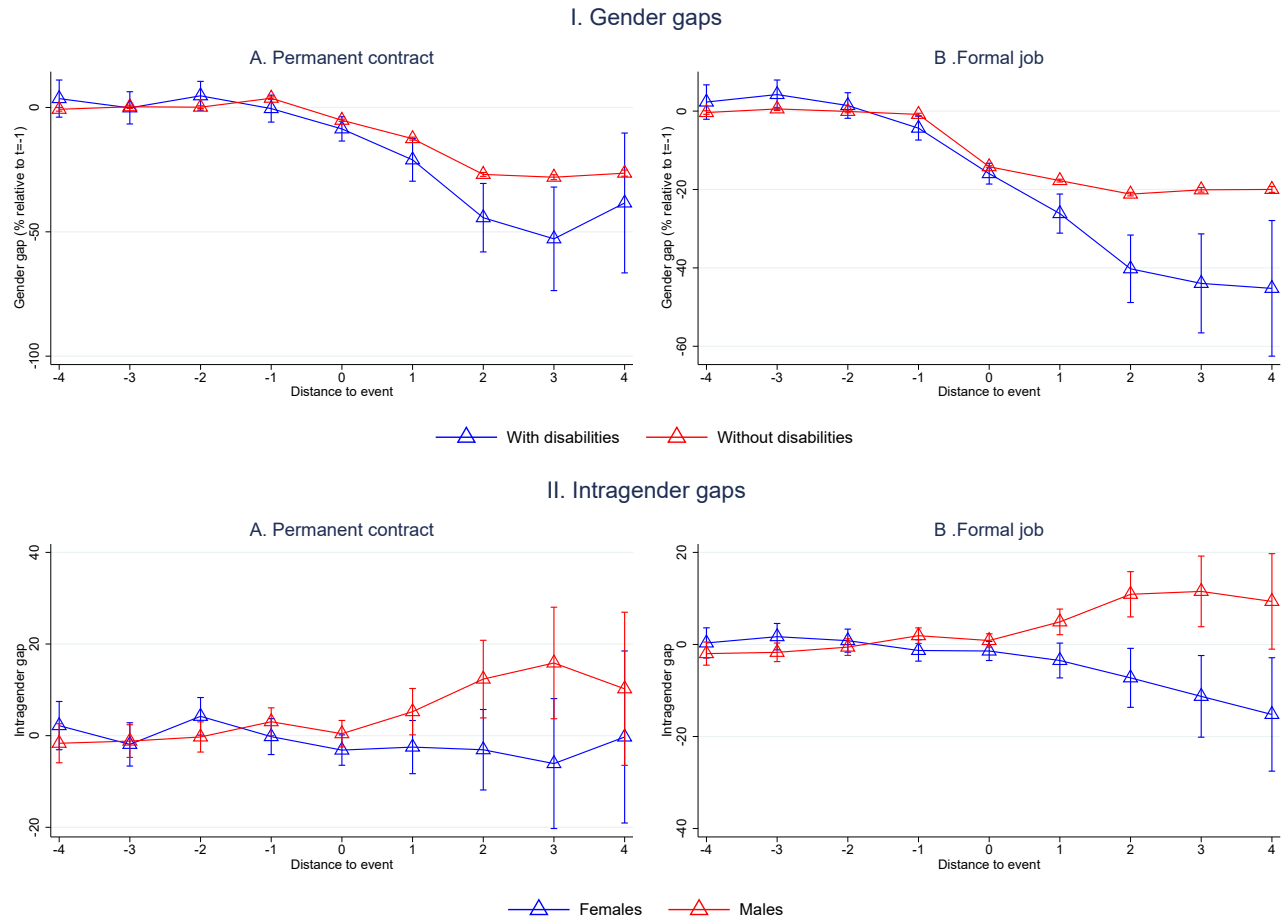


Figure 2: Job Type Decomposition

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Male}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

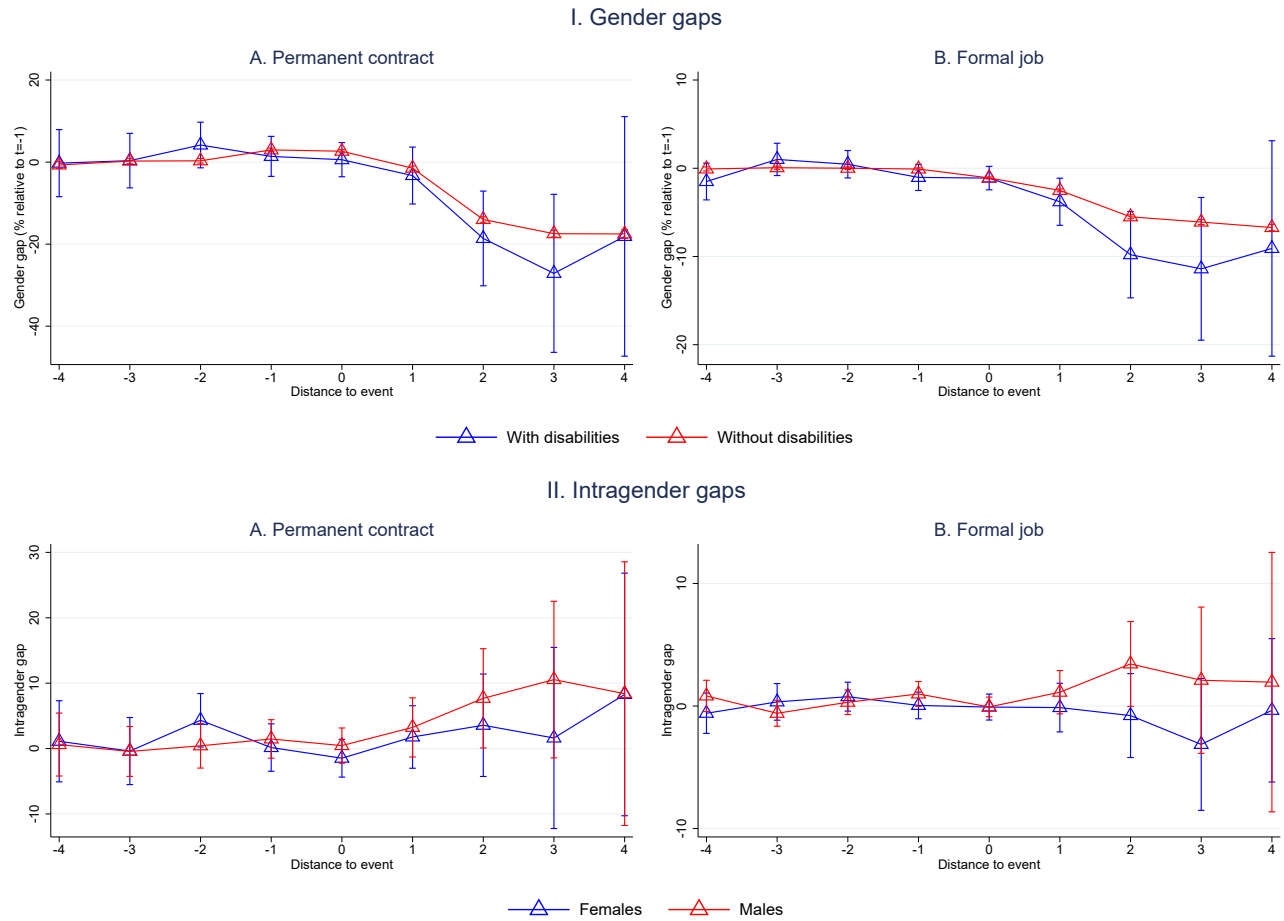


Figure 3: Conditional Job Type

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Male}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

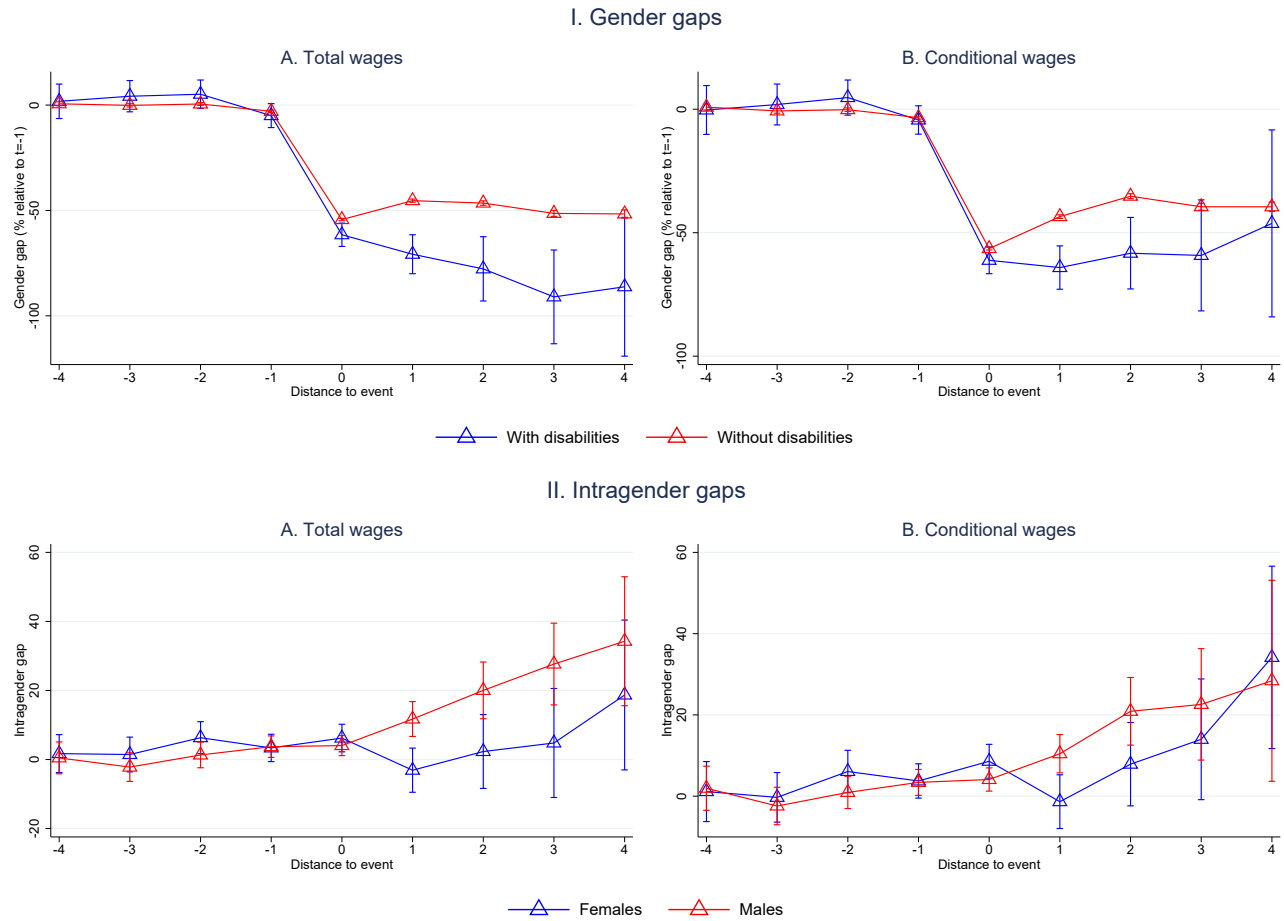


Figure 4: Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Male}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

6.1 Main Results

6.2 Heterogeneity

6.2.1 Singles

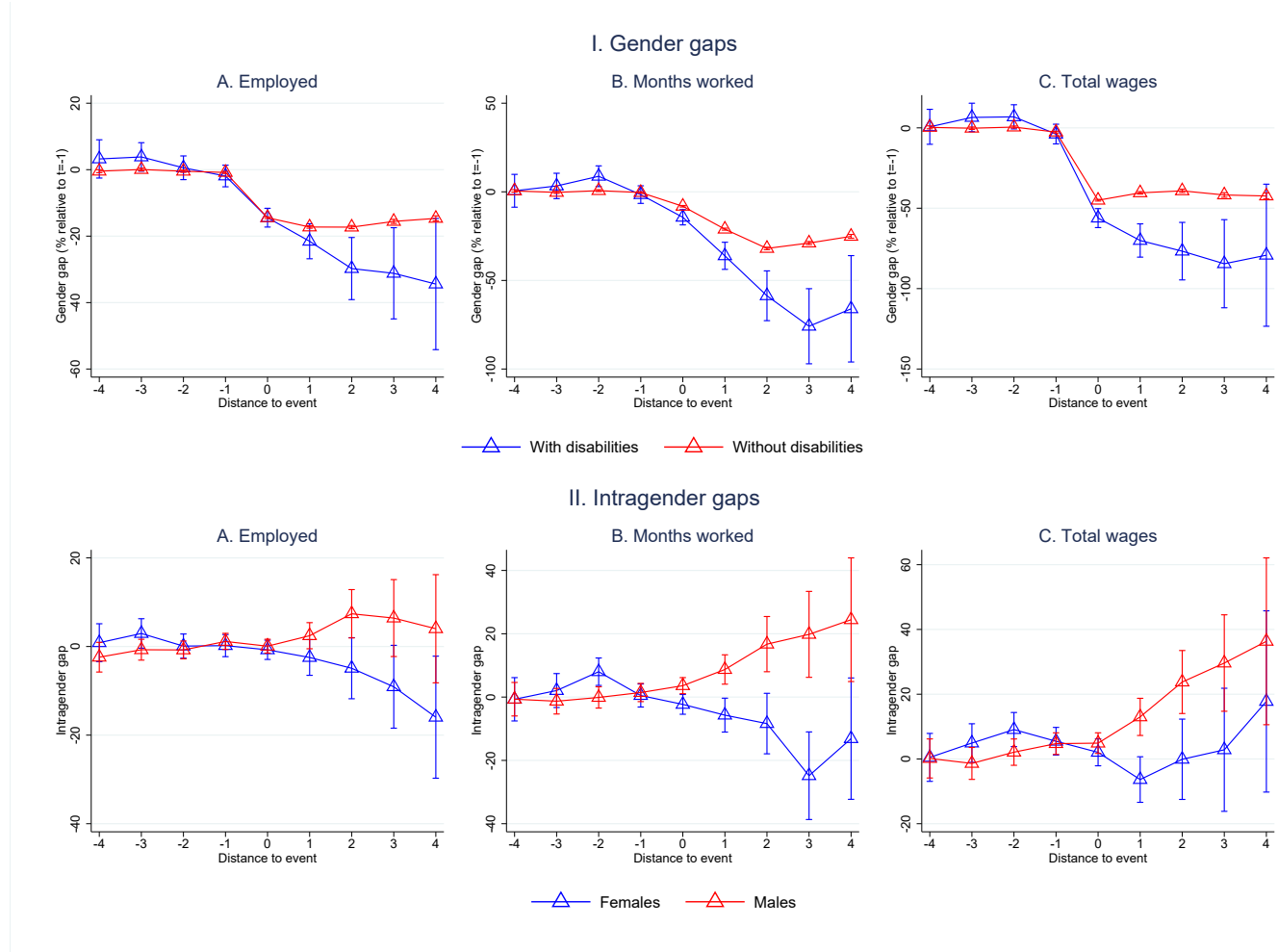


Figure 5: Singles: Employment and Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Female}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

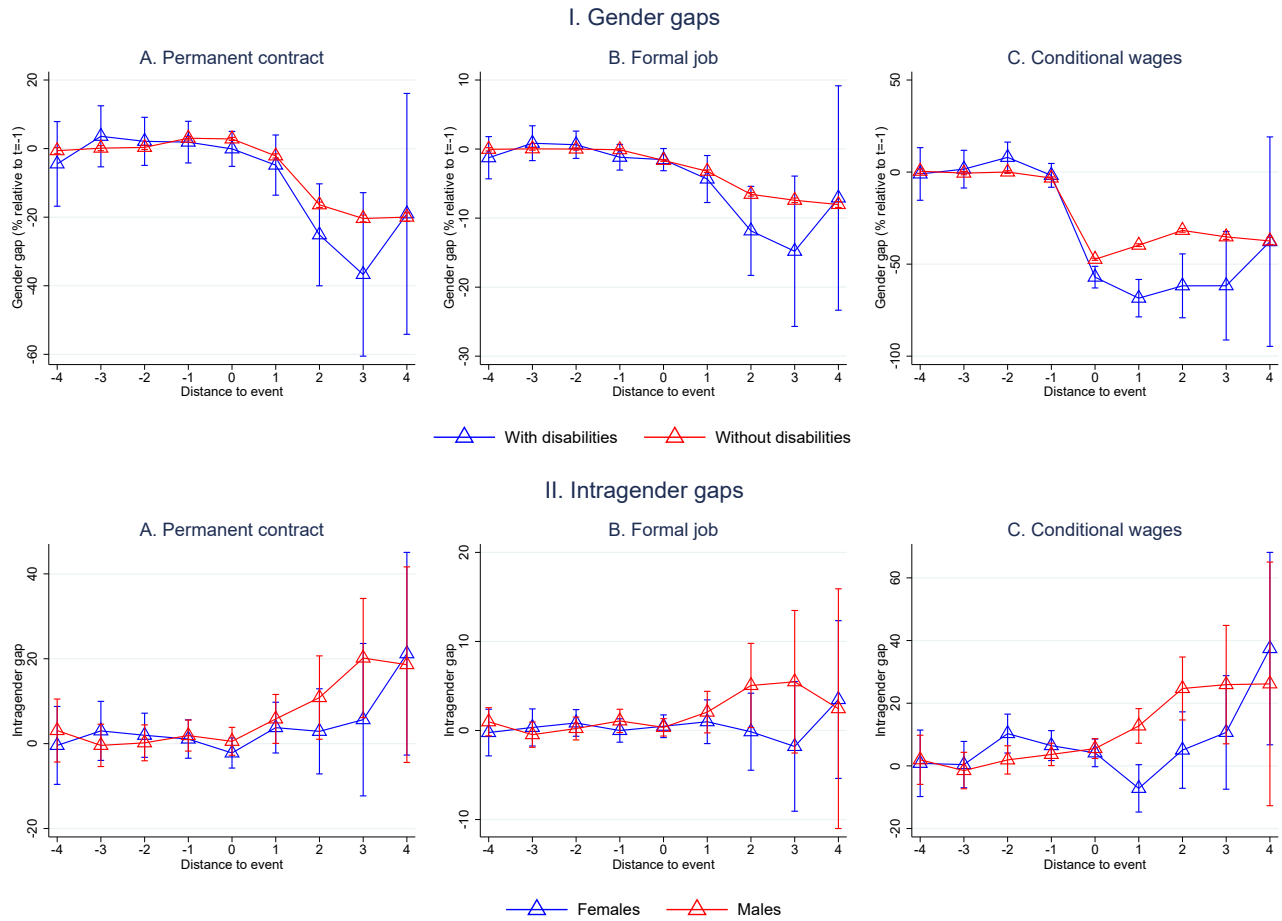


Figure 6: Singles: Employment and Wages (conditional)

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Female}}) / \bar{Y}_B^{\text{Male}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

6.2.2 Married

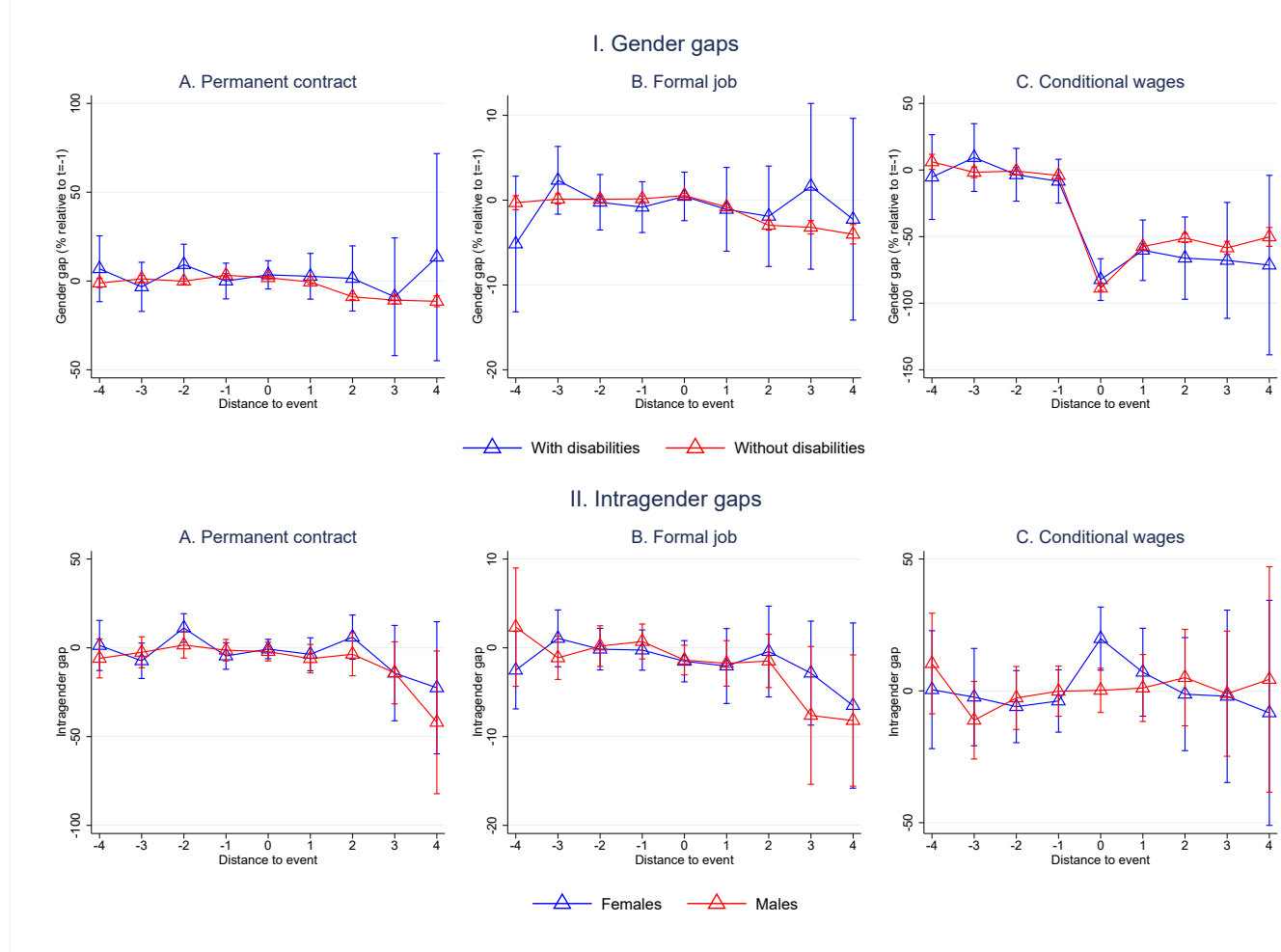


Figure 7: Married: Employment and Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Female}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

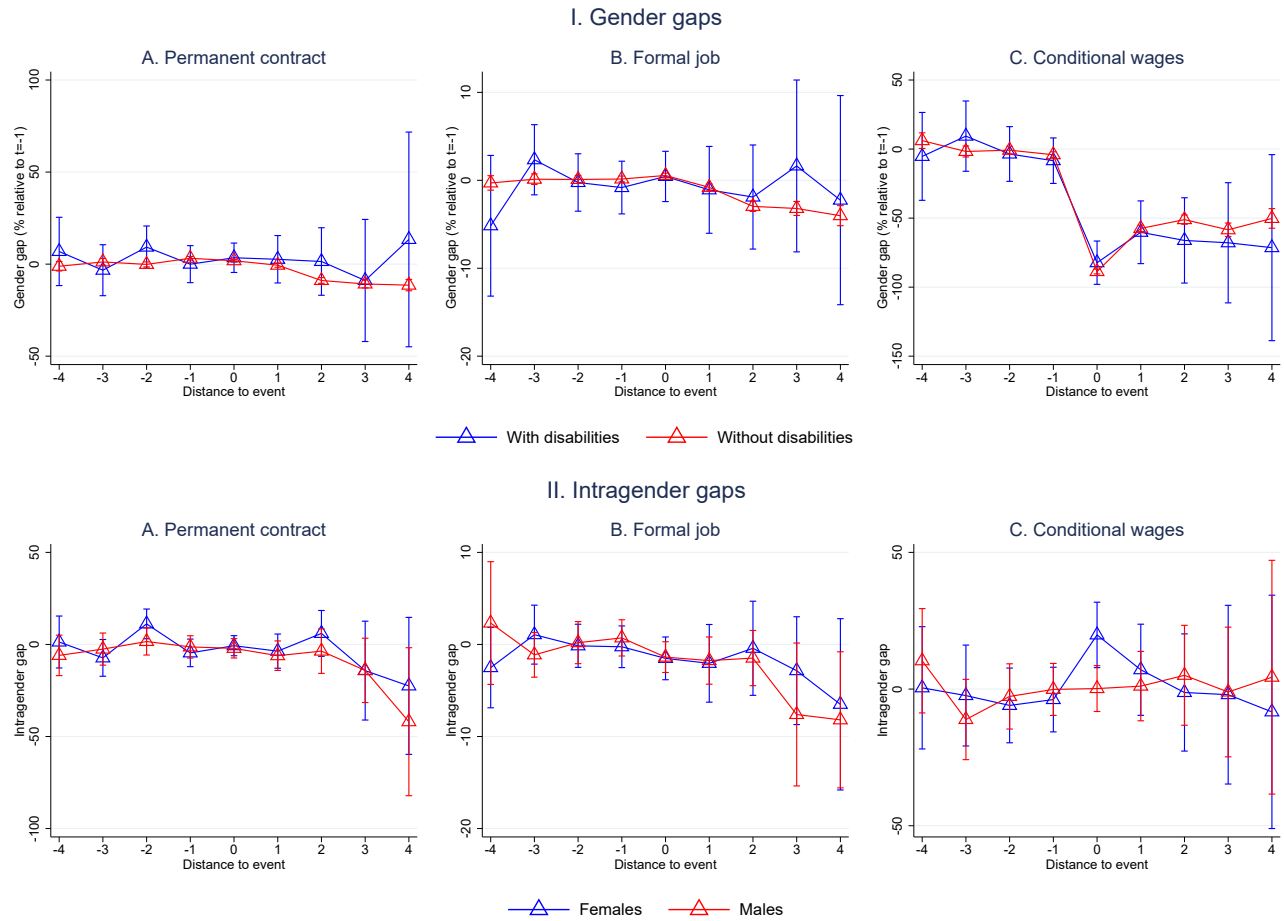


Figure 8: Married: Employment and Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Female}}) / \bar{Y}_B^{\text{Male}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

6.2.3 Low Labor Attachment

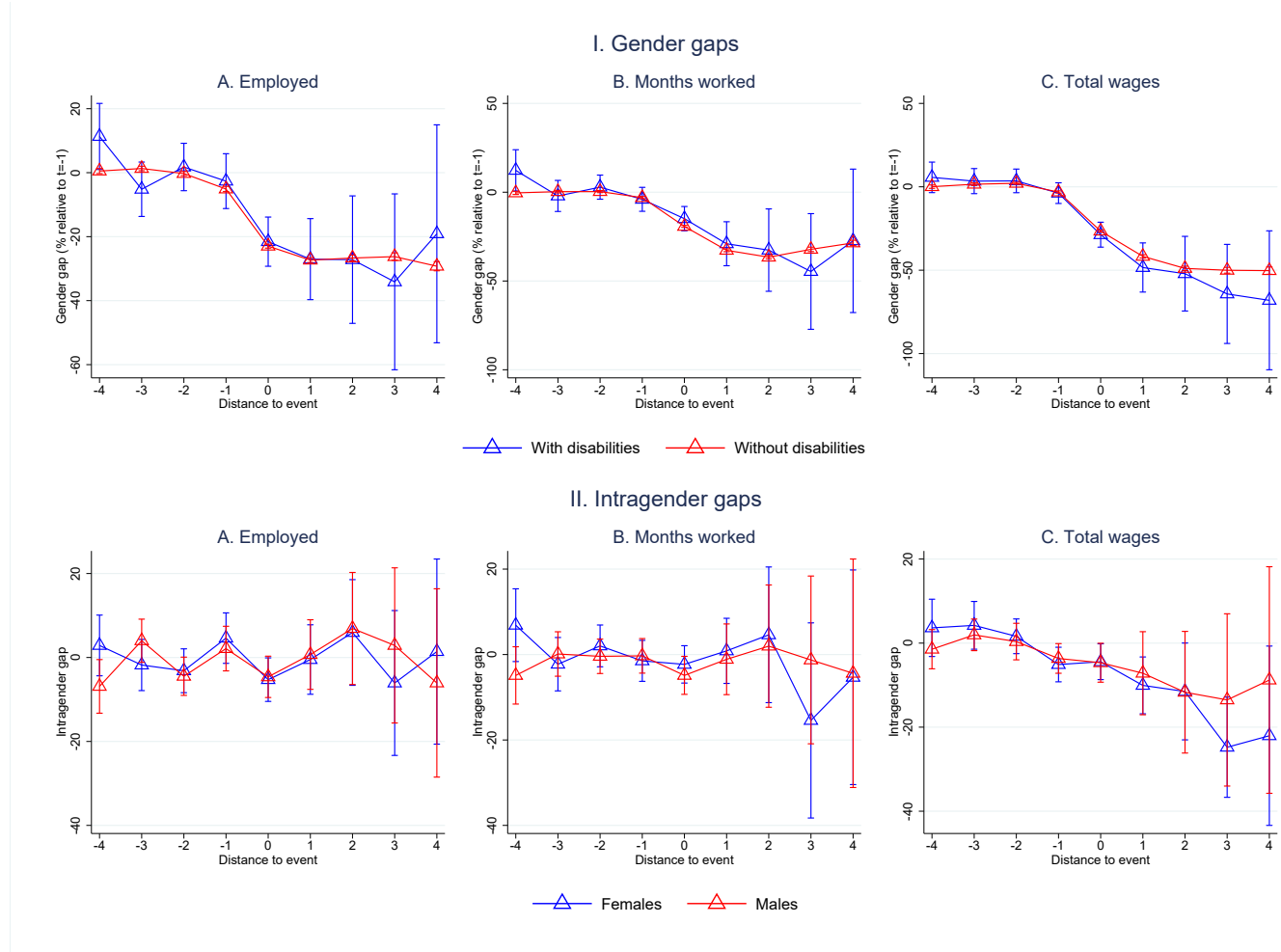


Figure 9: Low Labor Attachment: Employment and Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Female}}) / \bar{Y}_B^{\text{Male}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

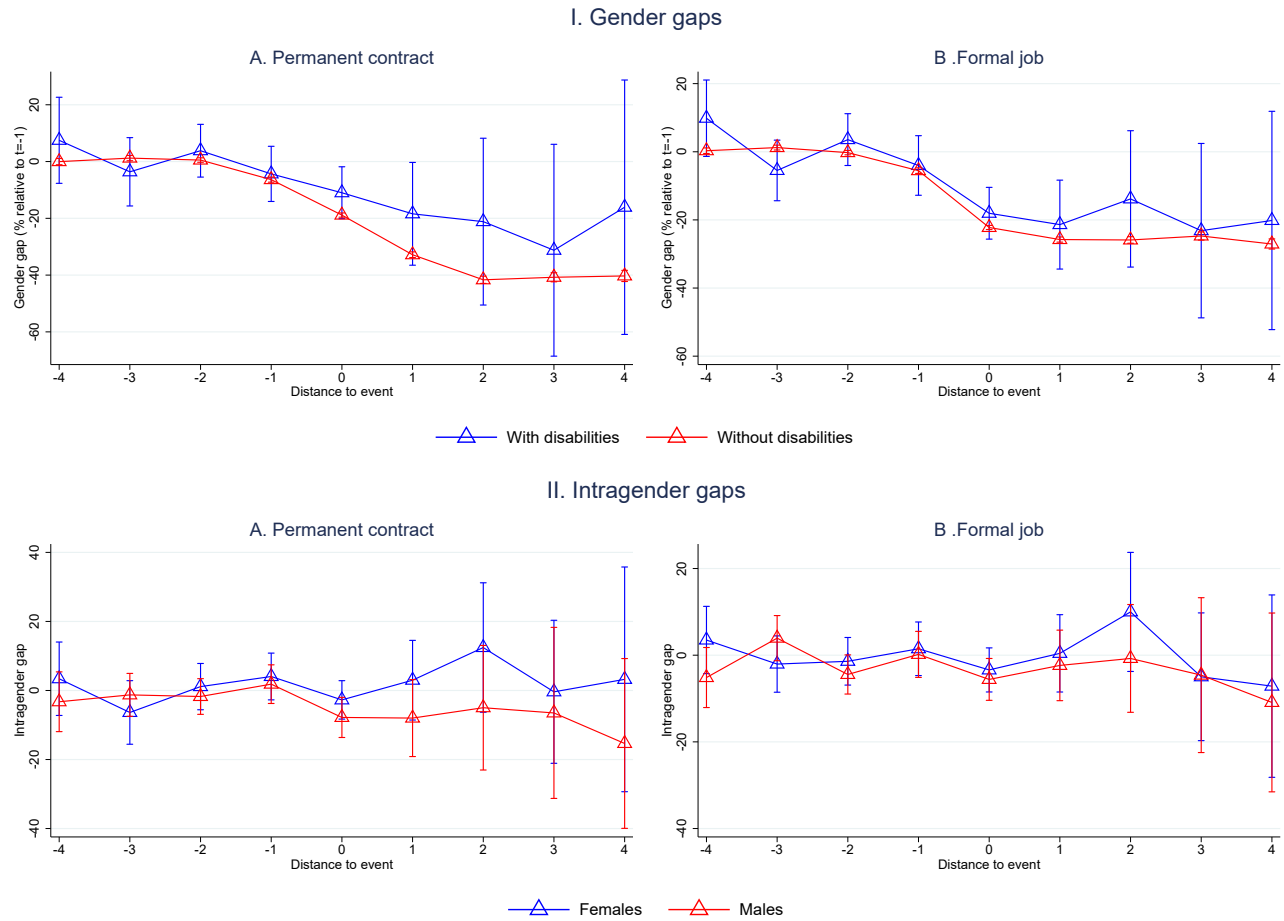


Figure 10: Low Labor Attachment: Employment Composition

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Female}}) / \bar{Y}_B^{\text{Male}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

6.2.4 High Labor Attachment

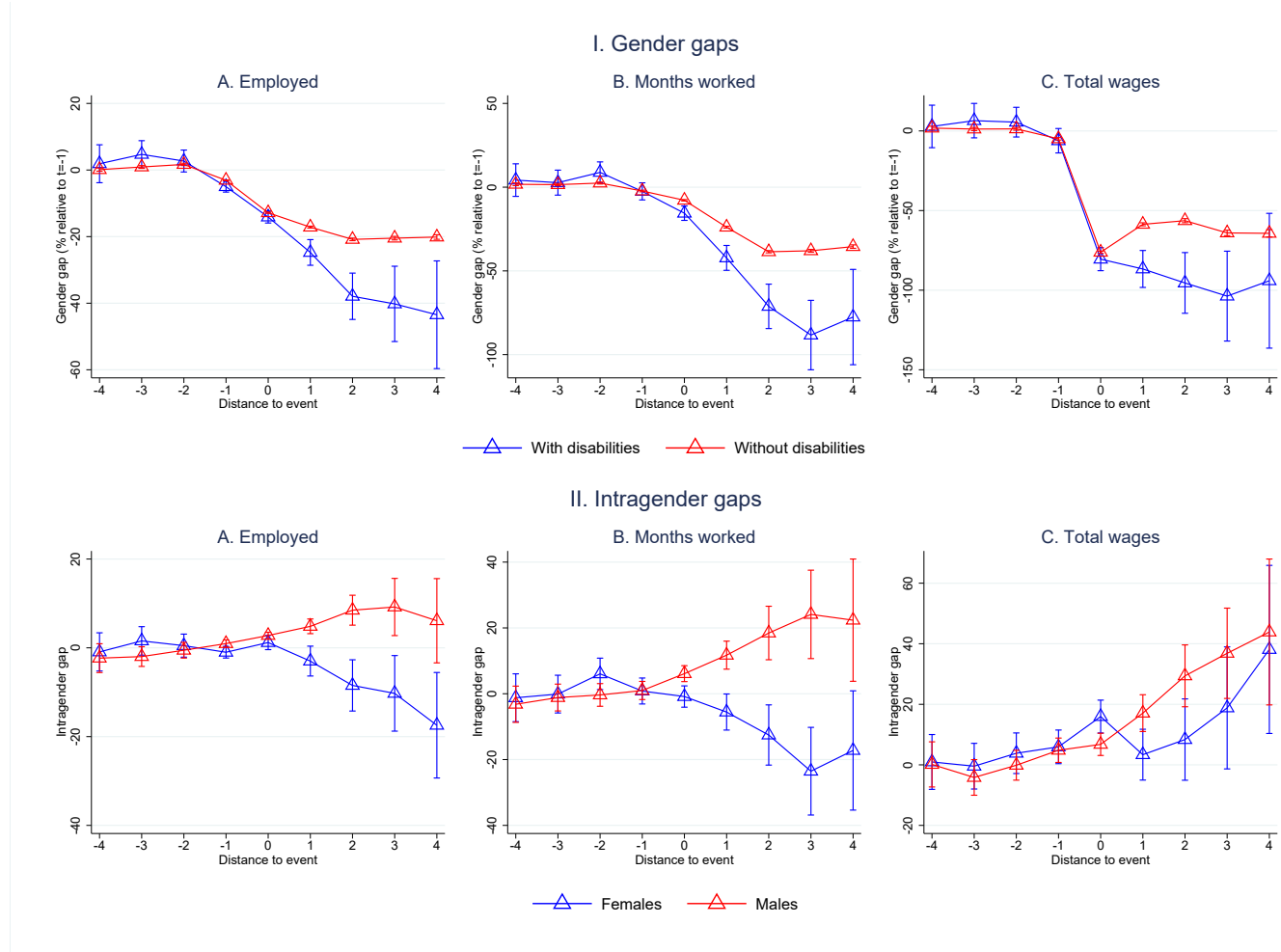


Figure 11: High Labor Attachment: Employment and Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Female}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

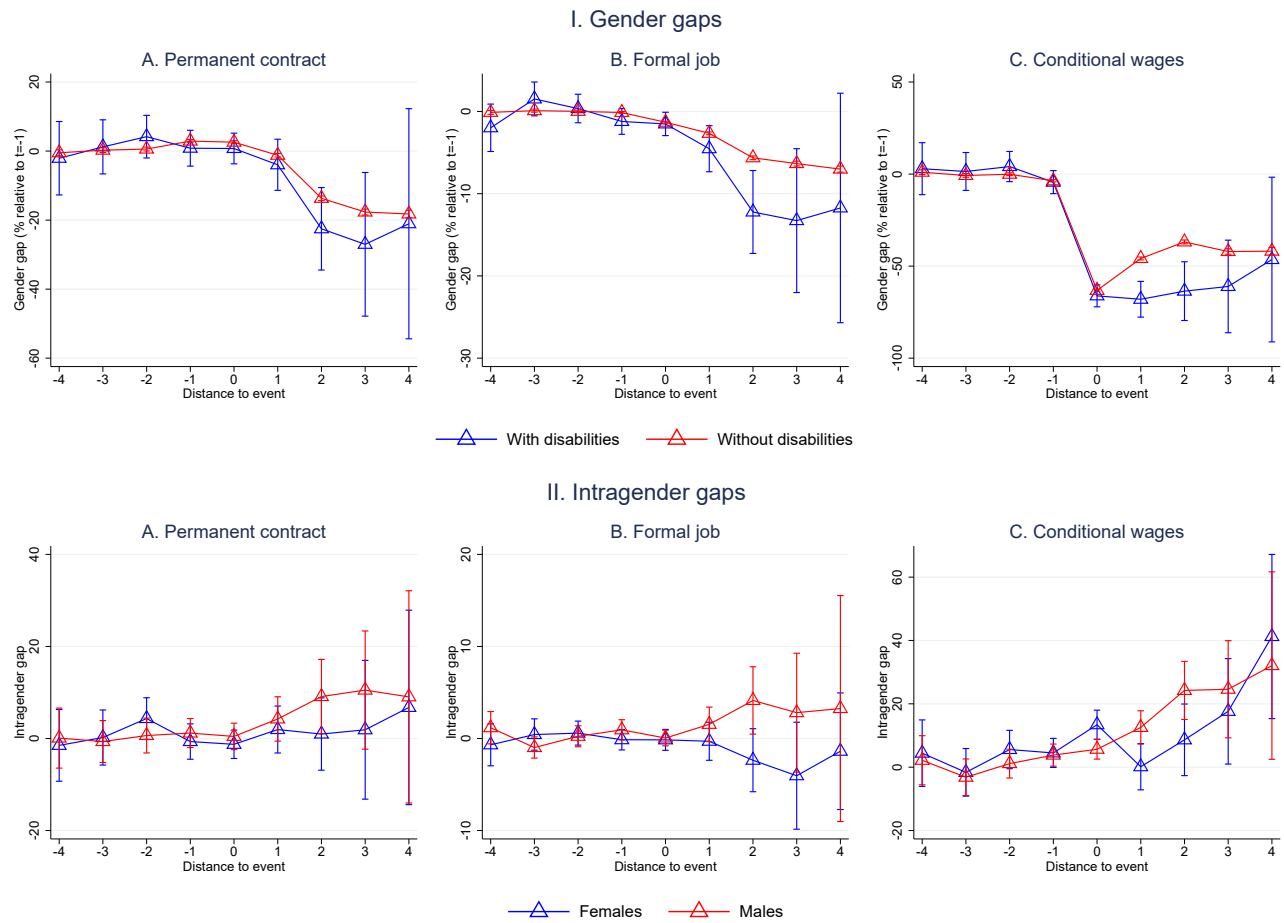


Figure 12: High Labor Attachment: Employment and Wages (conditional)

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Female}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

References

Anderson, Donna, Serge Dumont, Philip Jacobs, and Leila Azzaria, "The personal costs of caring for a child with a disability: a review of the literature," *Public Health Reports*, 2007, 122 (1), 3–16.

- Becker, Gary S.**, "A Theory of the Allocation of Time," *The Economic Journal*, 1965, 75 (299), 493–517.
- Berniell, Inés, Lucila Berniell, Dolores de la Mata, María Edo, and Mariana Marchionni**, "Motherhood and flexible jobs: Evidence from Latin American countries," *World Development*, 2023, 167, 106225.
- Berniell, Inés, Lucila Berniell, Dolores de la Mata, María Edo, and Mariana Marchionni**, "Gender gaps in labor informality: The motherhood effect," *Journal of Development Economics*, 2021, 150, 102599.
- Black, Sandra E, Sanni Breining, David N Figlio, Jonathan Guryan, Krzysztof Karbownik, Helena Skyt Nielsen, Jeffrey Roth, and Marianne Simonsen**, "Sibling Spillovers," *The Economic Journal*, 08 2020, 131 (633), 101–128.
- Borusyak, Kirill, Xavier Jaravel, and Jann Spiess**, "Revisiting Event Study Designs: Robust and Efficient Estimation," Papers 2108.12419, arXiv.org August 2021.
- Breining, Sanni Nørgaard**, "The presence of ADHD: Spillovers between siblings," *Economics Letters*, 2014, 124 (3), 469–473.
- Callaway, Brantly and Pedro H.C. Sant'Anna**, "Difference-in-Differences with multiple time periods," *Journal of Econometrics*, 2021, 225 (2), 200–230. Themed Issue: Treatment Effect 1.
- de Chaisemartin, Clément and Xavier D'Haultfœuille**, "Two-way fixed effects and differences-in-differences with heterogeneous treatment effects: a survey," *The Econometrics Journal*, 06 2022. utac017.
- Eriksen, Tine L. Mundbjerg, Amanda P. Gaulke, Niels Skipper, Jannet Svensson, and Peter Thingholm**, "Educational consequences of a sibling's disability: Evidence from type 1 diabetes," *Economics of Education Review*, 2023, 94, 102407.

- Frijters, Paul, David W. Johnston, Manisha Shah, and Michael A. Shields,** "To Work or Not to Work? Child Development and Maternal Labor Supply," *American Economic Journal-Applied Economics*, 2009, 1 (WOS:000284558300005), 97–110.
- Gunnsteinsson, Snaebjorn and Herdis Steingrimsdottir,** "The Long-term Impact of Children's Disabilities on Families," WorkingPaper 2019.
- Kleven, Henrik, Camille Landais, and Jakob Egholt Sogaard,** "Children and gender inequality: Evidence from Denmark," *American Economic Journal: Applied Economics*, 2019, 11 (4), 181–209.
- , —, **Johanna Posch, Andreas Steinhauer, and Josef Zweimüller,** "Child penalties across countries: Evidence and explanations," in "AEA Papers and Proceedings," Vol. 109 American Economic Association 2014 Broadway, Suite 305, Nashville, TN 37203 2019, pp. 122–126.
- Kuziemko, Ilyana, Jessica Pan, Jenny Shen, and Ebonya Washington,** "The Mommy Effect: Do Women Anticipate the Employment Effects of Motherhood?," Working Paper 24740, National Bureau of Economic Research June 2018.
- Martinez-Alvear, Claudia and Bernardita Vial,** "Discapacidad en Adultos en Chile: Menores Ingresos del Trabajo y Mayores Gastos," *Revista de Estudios Publicos*, 2023, 167.
- Powers, ET,** "Children's health and maternal work activity - Estimates under alternative disability definitions," *Journal of Human Resources*, SUM 2003, 38 (3), 522–556.
- Salkever, D. S.,** "Children's health problems and maternal work status," *Journal of Human Resources*, 1982, 17 (1), 94–109.
- Stabile, Mark and Sara Allin,** "The economic costs of childhood disability," *The future of children*, 2012, pp. 65–96.

- Sun, Liyang and Sarah Abraham**, “Estimating dynamic treatment effects in event studies with heterogeneous treatment effects,” *Journal of Econometrics*, 2021, 225 (2), 175–199. Themed Issue: Treatment Effect 1.
- Wasi, Nada, Bernard van den Berg, and Thomas C. Buchmueller**, “Heterogeneous effects of child disability on maternal labor supply: Evidence from the 2000 US Census,” *Labour Economics*, 2012, 19 (WOS:000299850000015), 139–154.
- Wondemu, Michael Yisfashewa, Pal Joranger, Asmund Hermansen, and Idunn Brekke**, “Impact of child disability on parental employment and labour income: a quasi-experimental study of parents of children with disabilities in Norway,” *BMC Public Health*, 2022, 22 (WOS:000857670400001).
- Wooldridge, Jeffrey M.**, “Two-Way Fixed Effects, the Two-Way Mundlak Regression, and Difference-in-Differences Estimators,” Technical Report August 2021.
- Zhu, Anna**, “Maternal employment trajectories and caring for an infant or toddler with a disability,” *Applied Economics*, 2016, 48 (WOS:000382588000002), 4606–4621.

A Data

Table A.1: Data Sources

Acronym	Name	Role
AFC	Administradora de Fondos de Cesantía	The unemployment insurance fund that collects and manages unemployment insurance contributions
AFP	Administradoras de Fondos de Pensiones	Private pension fund administrators that manages contributory retirement contributions
FPS	Ficha de Protección Social	A household-level socio-economic registry, designed to determine eligibility for social programs
MINEDUC	Ministerio de Educación	The Ministry of Education, responsible for education policies and data
MDSF	Ministerio de Desarrollo Social y Familia	The Ministry of Social Development and Family, responsible for social programs and family welfare data
RSH	Registro Social de Hogares	Replaces the FPS for determining eligibility for social programs
SRC	Servicio del Registro Civil	Vital statistics office. Maintains the National Disability Registry.

Note: All data sources are available at the MDSF offices. Anonymized data access granted following Resolución Exenta N°412, from the Subsecretaría de Evaluación Social.

Table A.2: Definitions and Sources

Variable	Definition	Source
Demographics		
Age	Age in years	SRC
Married	1 = Married	SRC
Labor force participation		
Employed	1 = Employed	AFC, AFP, FPS, RSH
Active	1 = Employed or studying	AFC, AFP, FPS, RSH
Months worked	Number of months worked in a year	AFC, AFP, FPS, RSH
Job type decomposition		
Permanent contract	1 = Permanent contract	AFC, AFP
Formal job	1 = Formal job	AFC, AFP
Conditional job type		
Permanent contract (conditional)	1 = Permanent contract, conditional on being employed	AFC, AFP
Formal job (conditional)	1 = Formal job, conditional on being employed	AFC, AFP
Wages		
Total wage	Total annual wage	AFC, AFP, FPS, RSH
Formal wage	Annual wage from formal job	AFC, AFP
Conditional wages		
Total wage (conditional)	Total annual wage, conditional on being employed	AFC, AFP, FPS, RSH
Formal wage (conditional)	Annual wage from formal job, conditional on being employed	AFC, AFP

Note: Variables, definitions, and sources. AFC is unemployment insurance. AFP are contributory pension funds. RSH and FPS are household registries. MINEDUC is the Ministry of Education. SRC is the civil registry and vital statistics office. All wages are in millions of CLP. A million CLP were 1,143 USD by 2022, or 2,346 USD under PPP.

B Descriptive Statistics

Table A.3: Panel Imputations

	(1)	(2)	(3)	(4)
	Mothers		Fathers	
Year	Children with disabilities	Children without disabilities	Children with disabilities	Children without disabilities
2013	0.25	0.27	0.19	0.22
2014	0.21	0.24	0.17	0.19
2015	0.22	0.25	0.16	0.19
2016	0.24	0.25	0.15	0.18
2017	0.26	0.26	0.13	0.16
2018	0.27	0.24	0.11	0.13
2019	0.28	0.24	0.11	0.13
2020	0.32	0.27	0.12	0.14
2021	0.32	0.26	0.11	0.12
2022	0.33	0.27	0.12	0.13

Note: Share of individuals who were not employed in formal jobs at AFC or AFP did not declare being employed in FPS or RSH, and were not studying according to MINEDUC.

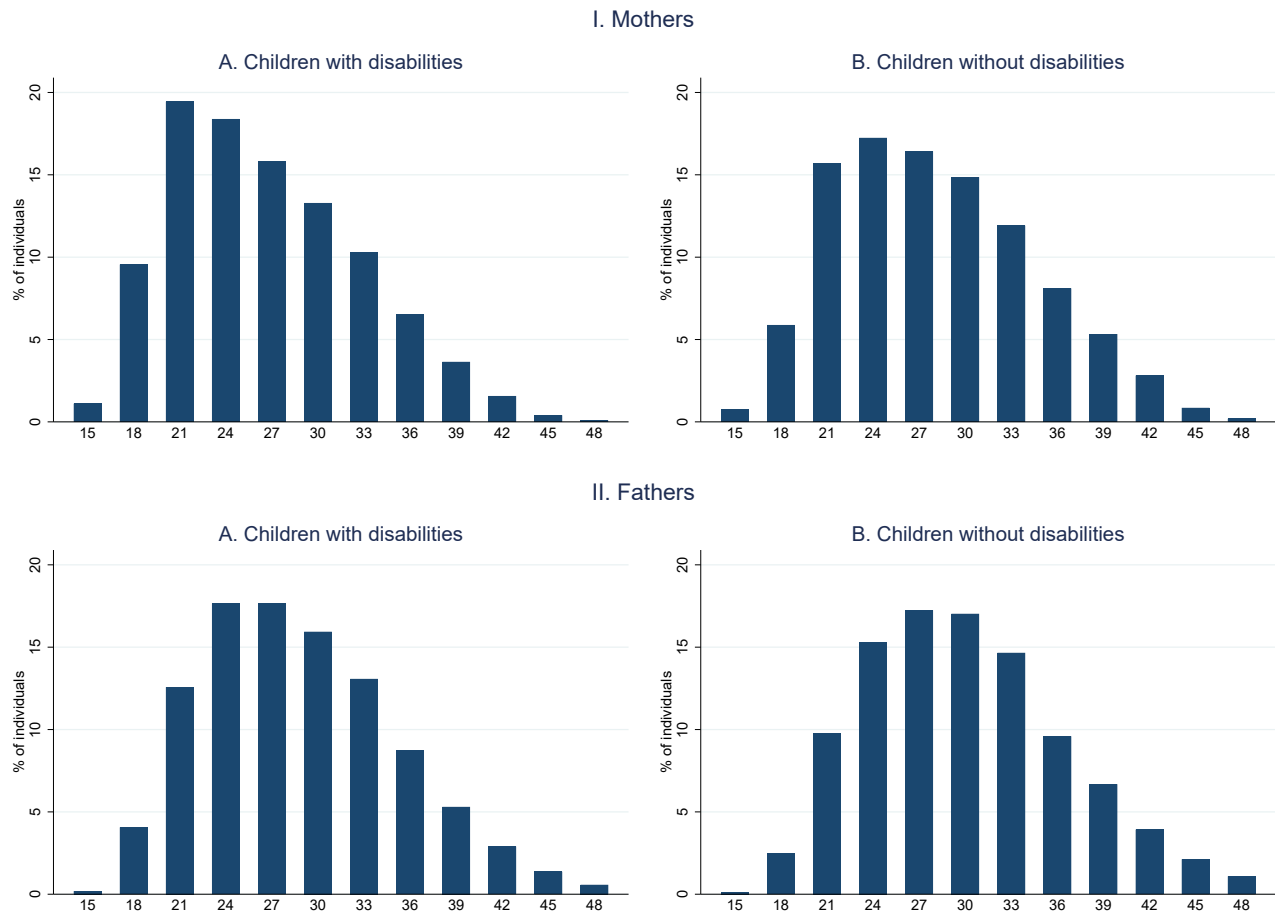


Figure A.1: Age at Childbirth

Notes: Share of individuals by age group during childbirth. The groups of bars represent mutually exclusive age ranges, defined as $15 = [15, 18)$, $18 = [18, 21)$, and so on. Each range includes ages from the lower bound up to, but not including, the upper bound. For example, the $[15, 18)$ group includes individuals aged 15 through 17. Panel I are mothers while Panel II are fathers. Subpanel A shows parents of children with disabilities while Subpanel B shows parents of children without disabilities.

C Main Results Tables

Table A.4: Gender Gaps and Intra-gender Gaps

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Labor force participation	Employed				Months worked			
	Gender gap		Intra-gender gap		Gender gap		Intra-gender gap	
	With disabilities	Without disabilities	Females	Males	With disabilities	Without disabilities	Females	Males
t=-4	3.13	-0.21	0.21	-2.69**	4.86	0.65*	1.72	-2.13
t=-3	2.72	0.53***	1.17	-0.90	0.73	-0.09	-0.40	-1.03
t=-2	0.64	-0.19	0.03	-0.69	6.94***	0.66***	6.49***	0.15
t=-1	-2.23*	-0.68***	-0.11	1.28*	-1.47	-0.55**	0.60	1.30
t=0	-15.21***	-12.97***	-1.94**	0.90	-13.29***	-7.17***	-2.67**	3.19***
t=1	-23.05***	-15.71***	-4.05**	3.62***	-34.72***	-19.69***	-6.25***	8.17***
t=2	-32.84***	-16.57***	-7.97***	7.98***	-55.28***	-30.55***	-10.24**	13.42***
t=3	-35.65***	-15.22**	-11.89***	8.13**	-71.76***	-28.17***	-23.44***	18.11***
t=4	-36.65***	-14.67***	-15.35***	6.45	-61.55***	-24.81***	-16.84**	17.76**
Job type decomposition	Permanent contract				Formal job			
	Gender gap		Intra-gender gap		Gender gap		Intra-gender gap	
	With disabilities	Without disabilities	Females	Males	With disabilities	Without disabilities	Females	Males
t=-4	3.56	-0.75**	2.20	-1.65	2.31	-0.36	0.33	-1.99
t=-3	-0.16	0.28	-1.91	-1.18	4.23**	0.55***	1.69	-1.71*
t=-2	4.68	0.11	4.22**	-0.28	1.43	-0.08	0.82	-0.58
t=-1	-0.46	3.72***	-0.20	3.04**	-4.35***	-0.84***	-1.31	1.91**
t=0	-8.62***	-5.15***	-3.15*	0.43	-15.96***	-14.19***	-1.42	0.85
t=1	-21.07***	-12.54***	-2.49	5.24**	-26.15***	-17.73***	-3.49*	4.90***
t=2	-44.32***	-26.92***	-3.07	12.35***	-40.24***	-21.18***	-7.26**	10.90***
t=3	-52.82***	-28.04***	-6.09	15.86**	-43.96***	-20.08***	-11.28**	11.53***
t=4	-38.41***	-26.41***	-0.29	10.23	-45.23***	-19.98***	-15.21**	9.35*
Conditional job type	Permanent contract				Formal job			
	Gender gap		Intra-gender gap		Gender gap		Intra-gender gap	
	With disabilities	Without disabilities	Females	Males	With disabilities	Without disabilities	Females	Males
t=-4	-0.25	-0.70	1.11	0.61	-1.50	-0.08	-0.59	0.82
t=-3	0.36	0.26	-0.38	-0.44	1.00	0.06	0.34	-0.59
t=-2	4.16	0.31	4.33**	0.42	0.46	0.01	0.76	0.31
t=-1	1.39	2.97***	0.15	1.47	-1.03	-0.08	0.05	0.98*
t=0	0.58	2.65***	-1.48	0.45	-1.11	-1.10***	-0.09	-0.08
t=1	-3.28	-1.48***	1.77	3.23	-3.80***	-2.51***	-0.13	1.12
t=2	-18.61***	-14.00***	3.56	7.68**	-9.80***	-5.50***	-0.78	3.43*
t=3	-27.11***	-17.45***	1.62	10.55*	-11.40***	-6.09***	-3.13	2.10
t=4	-18.12	-17.51***	8.27	8.40	-9.09	-6.72***	-0.35	1.95
Wages	Total wages				Conditional wages			
	Gender gap		Intra-gender gap		Gender gap		Intra-gender gap	
	With disabilities	Without disabilities	Females	Males	With disabilities	Without disabilities	Females	Males
t=-4	1.77	0.60	1.71	0.47	-0.29	0.86	1.14	1.96
t=-3	4.20	-0.15	1.45	-2.19	1.93	-0.68	-0.29	-2.42
t=-2	5.14	0.50	6.32***	1.32	4.73	-0.18	6.07**	0.92
t=-1	-5.01*	-2.97***	3.35*	3.72**	-4.35	-3.39***	3.74*	3.40**
t=0	-61.53***	-54.33***	6.22***	4.03***	-61.18***	-56.45***	8.59***	4.10***
t=1	-70.77***	-45.35***	-3.10	11.73***	-64.11***	-43.48***	-1.36	10.45***
t=2	-77.71***	-46.50***	2.31	20.02***	-58.29***	-35.20***	7.87	20.89***
t=3	-91.01***	-51.39***	4.79	27.65***	-59.19***	-39.48***	14.00*	22.60***
t=4	-86.21***	-51.65***	18.69*	34.27***	-46.22**	-39.50***	34.16***	28.40**

Note: Gender gaps are calculated as $\text{Gender gap}_i = (D_i^{\text{Female}} - D_i^{\text{Male}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities in Columns (1), (5), and (9), and children without disabilities in columns (2), (6), and (10). Normalized intra-gender gaps due to childhood disability are calculated as $\text{Intra-gender gap}_i = (D_i^{\text{CwD}} - D_i^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females in columns (3), (7), and (11) and for males in Columns (4), (8), and (12). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . In the first panel, we show employment, including the informal employment, in Columns (1) to (4), while we show the number of months worked in a year in Columns (5) to (8). In the second panel, we show job type decomposition, including permanent contract status, in Columns (1) to (4), then formal job status in Columns (5) to (8). In the third panel, we show job type decompositions if employed, including permanent contract status, in Columns (1) to (4), then formal job status in Columns (5) to (8). In the fourth panel, we show total wages in Columns (1) to (4) and conditional (on employment) wages in Columns (5) to (8). The statistical significance of penalties is given by * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.5: Event Study Coefficients

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Labor force participation	Employed				Months worked			
	Mothers		Fathers		Mothers		Fathers	
	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities
t=-4	0.00	0.00*	-0.02*	0.00***	0.10	0.01	-0.16	-0.03**
t=-3	0.01*	0.01***	-0.00	0.00***	-0.05	-0.03***	-0.09	-0.03***
t=-2	0.01	0.01***	0.00	0.01***	0.34***	0.00	-0.02	-0.03***
t=-1	-0.00	0.00	0.01**	0.00***	0.04	0.01	0.12	0.04***
t=0	-0.11***	-0.10***	-0.00	-0.01***	-0.51***	-0.37***	0.19***	-0.01
t=1	-0.19***	-0.16***	-0.03***	-0.06***	-1.80***	-1.47***	0.03	-0.48***
t=2	-0.28***	-0.22***	-0.05***	-0.11***	-2.92***	-2.38***	-0.01	-0.85***
t=3	-0.36***	-0.27***	-0.11***	-0.18***	-4.10***	-2.87***	-0.32	-1.45***
t=4	-0.43***	-0.32***	-0.17***	-0.23***	-4.15***	-3.26***	-0.90**	-2.01***
Job type decomposition	Permanent contract				Formal job			
	Mothers		Fathers		Mothers		Fathers	
	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities
t=-4	0.01	-0.00	-0.01	0.00**	0.00	0.00*	-0.01	0.00***
t=-3	-0.01	0.00**	-0.00	0.00	0.02**	0.01***	-0.01	0.00***
t=-2	0.02***	0.00***	0.00	0.00***	0.01	0.01***	0.00	0.01***
t=-1	0.02**	0.02***	0.02**	0.00**	-0.01	-0.00	0.02***	0.00***
t=0	-0.04***	-0.02***	-0.00	-0.00***	-0.11***	-0.10***	-0.01	-0.02***
t=1	-0.09***	-0.08***	-0.01	-0.04***	-0.19***	-0.17***	-0.03**	-0.06***
t=2	-0.19***	-0.18***	-0.02	-0.08***	-0.30***	-0.25***	-0.04**	-0.13***
t=3	-0.26***	-0.23***	-0.05	-0.13***	-0.38***	-0.31***	-0.10**	-0.19***
t=4	-0.27***	-0.27***	-0.12***	-0.17***	-0.46***	-0.36***	-0.17***	-0.24***
Conditional job type	Permanent contract				Formal job			
	Mothers		Fathers		Mothers		Fathers	
	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities
t=-4	0.00	-0.00*	0.00	0.00	-0.01	0.00	0.01	0.00
t=-3	-0.00	0.00	-0.00	-0.00	0.00	0.00	-0.01	0.00
t=-2	0.03**	0.00*	0.00	0.00	0.01	-0.00	0.00	-0.00
t=-1	0.02	0.01***	0.01	-0.00	-0.00	-0.00*	0.01*	-0.00
t=0	0.01	0.02***	0.00	0.00*	-0.01**	-0.01***	-0.00	-0.00***
t=1	0.00	-0.01***	0.02	-0.00*	-0.03***	-0.03***	0.01	-0.00***
t=2	-0.06***	-0.08***	0.04	-0.01**	-0.07***	-0.06***	0.02	-0.01***
t=3	-0.10**	-0.11***	0.05	-0.01**	-0.10***	-0.07***	0.01	-0.01***
t=4	-0.07	-0.11***	0.03	-0.02***	-0.08***	-0.08***	0.00	-0.01***
Wages	Total wages				Conditional wages			
	Mothers		Fathers		Mothers		Fathers	
	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities
t=-4	0.05	-0.01	-0.01	-0.03**	0.04	-0.00	0.05	-0.04**
t=-3	0.02	-0.03**	-0.11	-0.02**	-0.09	-0.08***	-0.16	-0.04***
t=-2	0.18**	-0.01	0.03	-0.03**	0.17	-0.07***	-0.02	-0.06***
t=-1	0.01	-0.09***	0.16**	0.01	-0.09	-0.23***	0.09	-0.08***
t=0	-1.70***	-1.89***	0.18***	0.02**	-2.28***	-2.62***	0.14*	-0.06***
t=1	-1.93***	-1.83***	0.23**	-0.25***	-2.31***	-2.26***	0.23*	-0.28***
t=2	-2.00***	-2.07***	0.36**	-0.45***	-1.85***	-2.16***	0.45**	-0.57***
t=3	-2.47***	-2.62***	0.30	-0.82***	-2.06***	-2.62***	0.28	-0.82***
t=4	-2.45***	-3.01***	0.18	-1.21***	-1.54***	-2.89***	0.29	-1.10***

Note: In the first panel, we show employment, including the informal employment, in Columns (1) to (4), then the number of months worked in a year in Columns (5) to (8). In the second panel, we show job type decomposition, including permanent contract status, in Columns (1) to (4), followed by formal job status in Columns (5) to (8). In the third panel, we show job type decompositions if employed, including permanent contract status, in Columns (1) to (4) and show formal job status in Columns (5) to (8). In the fourth panel, we show total wages in Columns (1) to (4) and conditional (on employment) wages in Columns (5) to (8). The statistical significance of penalties is given by * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.6: Normalized Event Study Coefficients

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Labor force participation	Employed				Months worked			
	Mothers		Fathers		Mothers		Fathers	
	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities
t=-4	0.00	0.00***	-0.03***	0.01***	0.02	0.00	-0.03	-0.01
t=-3	0.02**	0.01***	-0.01	0.01***	-0.01	-0.01	-0.02	-0.01
t=-2	0.01	0.01***	0.00	0.01***	0.07	0.00	-0.00	-0.01
t=-1	-0.00	0.00	0.02***	0.01***	0.01	0.00	0.02	0.01
t=0	-0.16***	-0.15***	-0.01	-0.02***	-0.10	-0.07***	0.04	-0.00
t=1	-0.27***	-0.24***	-0.04***	-0.09***	-0.34***	-0.29***	0.01	-0.10***
t=2	-0.40***	-0.34***	-0.07***	-0.17***	-0.55***	-0.47***	-0.00	-0.17***
t=3	-0.52***	-0.42***	-0.16***	-0.27***	-0.78***	-0.57***	-0.06	-0.29***
t=4	-0.62***	-0.49***	-0.25***	-0.35***	-0.79*	-0.65***	-0.17	-0.40***
Job type decomposition	Permanent contract				Formal job			
	Mothers		Fathers		Mothers		Fathers	
	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities
t=-4	0.02*	-0.00**	-0.02	0.01***	0.01	0.00***	-0.02*	0.01***
t=-3	-0.01	0.01***	-0.01	0.00**	0.03***	0.01***	-0.01*	0.01***
t=-2	0.05***	0.01***	0.01	0.01***	0.02**	0.01***	0.00	0.01***
t=-1	0.04***	0.04***	0.05***	0.01***	-0.01*	-0.00**	0.03***	0.01***
t=0	-0.09***	-0.06***	-0.01	-0.01***	-0.17***	-0.17***	-0.01**	-0.02***
t=1	-0.24***	-0.22***	-0.02*	-0.09***	-0.30***	-0.28***	-0.04***	-0.10***
t=2	-0.49***	-0.48***	-0.04**	-0.21***	-0.47***	-0.42***	-0.07***	-0.21***
t=3	-0.65***	-0.62***	-0.13***	-0.34***	-0.60***	-0.51***	-0.16***	-0.31***
t=4	-0.69***	-0.72***	-0.31***	-0.45***	-0.72***	-0.59***	-0.27***	-0.39***
Conditional job type	Permanent contract				Formal job			
	Mothers		Fathers		Mothers		Fathers	
	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities
t=-4	0.01	-0.01***	0.01	0.00	-0.01	0.00	0.01	0.00
t=-3	-0.00	0.00	-0.01	-0.00	0.00	0.00	-0.01	0.00
t=-2	0.05***	0.00***	0.01	0.00	0.01	-0.00	0.00	-0.00
t=-1	0.03*	0.03***	0.01	-0.00**	-0.00	-0.00**	0.01**	-0.00
t=0	0.01*	0.03***	0.01	0.00**	-0.01**	-0.01***	-0.00	-0.00***
t=1	0.00	-0.02***	0.03**	-0.00**	-0.03***	-0.03***	0.01	-0.00***
t=2	-0.12***	-0.16***	0.07***	-0.02**	-0.07***	-0.07***	0.02	-0.01***
t=3	-0.18***	-0.20***	0.09**	-0.03**	-0.11***	-0.08***	0.01	-0.01***
t=4	-0.13**	-0.22***	0.06	-0.04**	-0.09***	-0.08***	0.01	-0.01***
Wages	Total wages				Conditional wages			
	Mothers		Fathers		Mothers		Fathers	
	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities	With disabilities	Without disabilities
t=-4	0.02	-0.00	-0.00	-0.01	0.01	-0.00	0.01	-0.01
t=-3	0.01	-0.01	-0.04	-0.01	-0.02	-0.02	-0.04	-0.01
t=-2	0.06	-0.00	0.01	-0.01	0.04	-0.02	-0.00	-0.01
t=-1	0.00	-0.03***	0.05	0.00	-0.02	-0.05***	0.02	-0.02*
t=0	-0.56***	-0.54***	0.06	0.00	-0.58***	-0.58***	0.04	-0.01*
t=1	-0.63***	-0.52***	0.07	-0.07***	-0.58***	-0.50***	0.06	-0.06***
t=2	-0.66***	-0.59***	0.12	-0.13***	-0.47**	-0.48***	0.11	-0.13***
t=3	-0.81***	-0.75***	0.10	-0.23***	-0.52*	-0.58***	0.07	-0.18***
t=4	-0.80**	-0.86***	0.06	-0.35***	-0.39	-0.64***	0.07	-0.24***

Note: In the first panel, we show employment, including the informal employment, in Columns (1) to (4), then show the number of months worked in a year in Columns (5) to (8). In the second panel, we show job type decomposition, including permanent contract status, in Columns (1) to (4), followed by formal job status in Columns (5) to (8). In the third panel, we show job type decompositions if employed, including permanent contract status, in Columns (1) to (4), then show formal job status in Columns (5) to (8). In the fourth panel, we show total wages in Columns (1) to (4) and conditional (on employment) wages in Columns (5) to (8). The statistical significance of penalties is given by * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

D Normalized Coefficient Plots

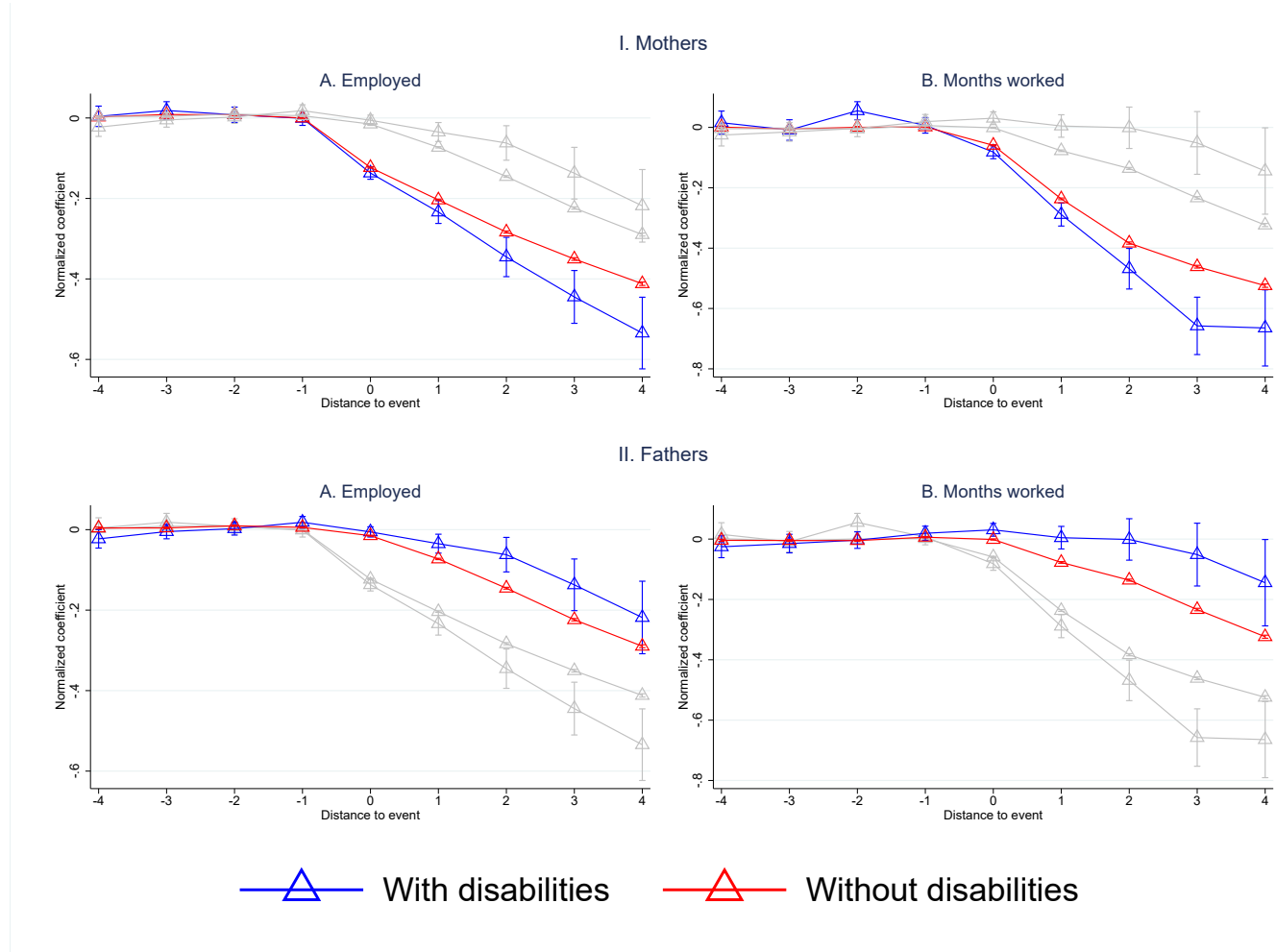


Figure A.2: Normalized Coefficients: Labor Force Participation

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

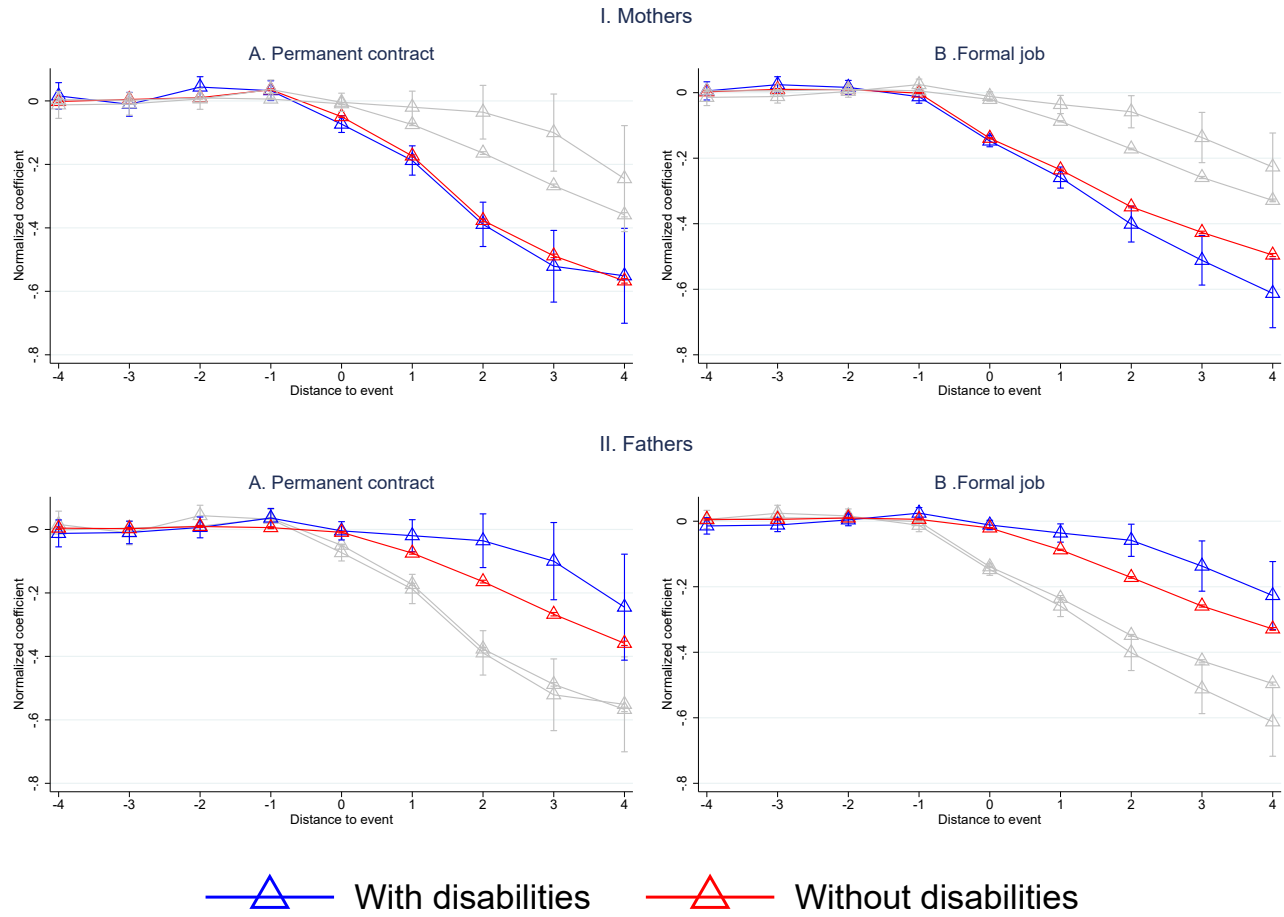


Figure A.3: Normalized Coefficients: Job Type Decomposition

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

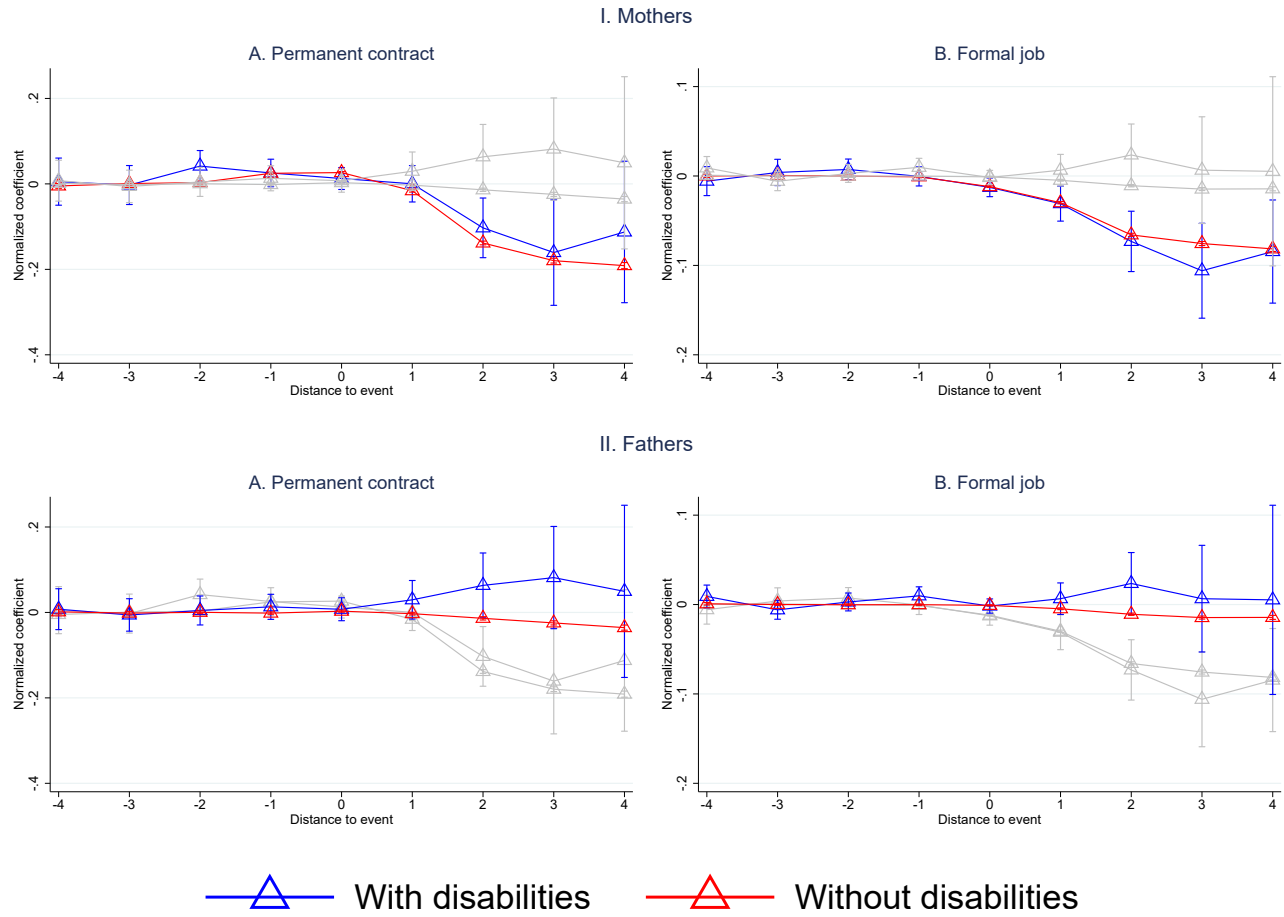


Figure A.4: Normalized Coefficients: Conditional Job Type

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

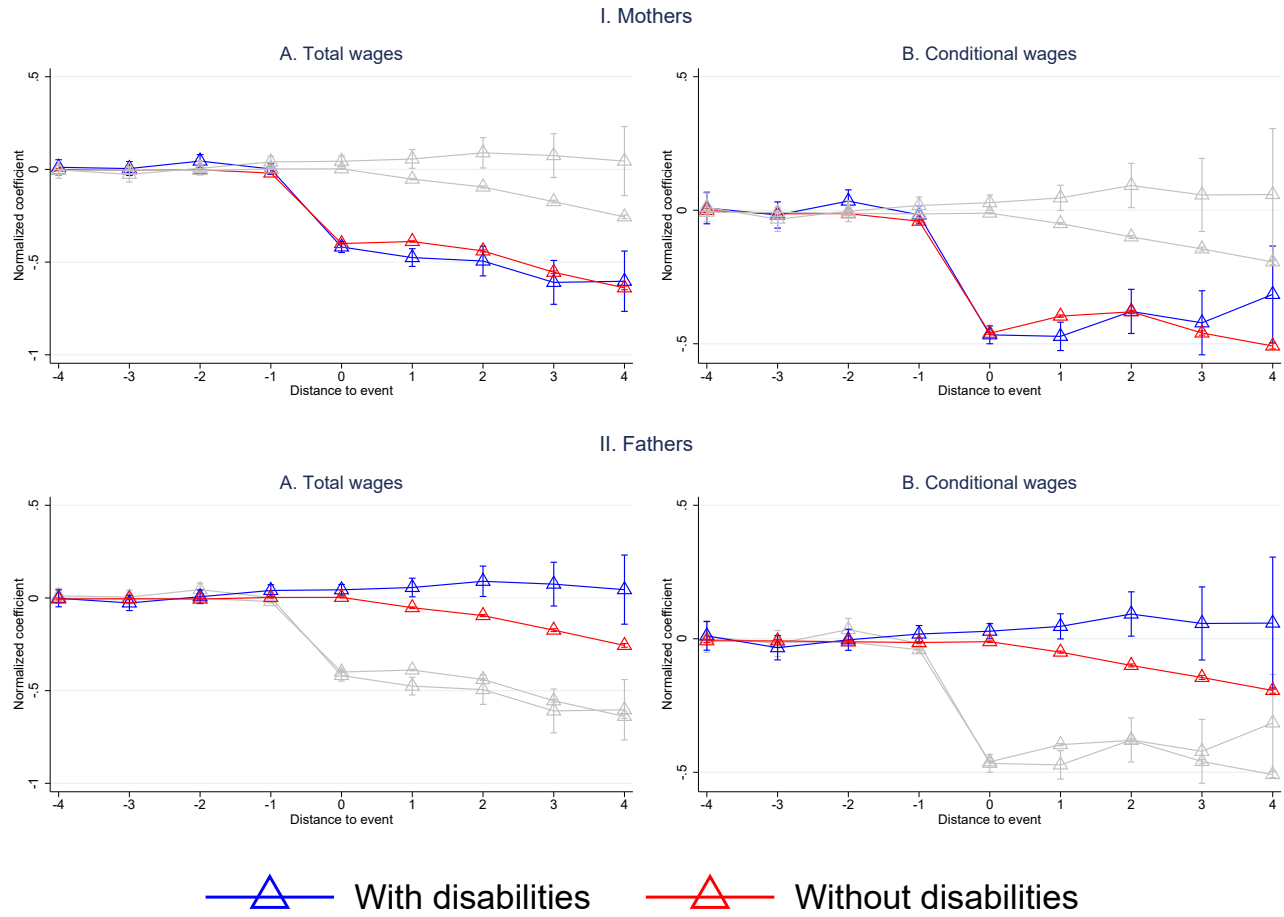


Figure A.5: Normalized Coefficients: Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

D.1 Main Results

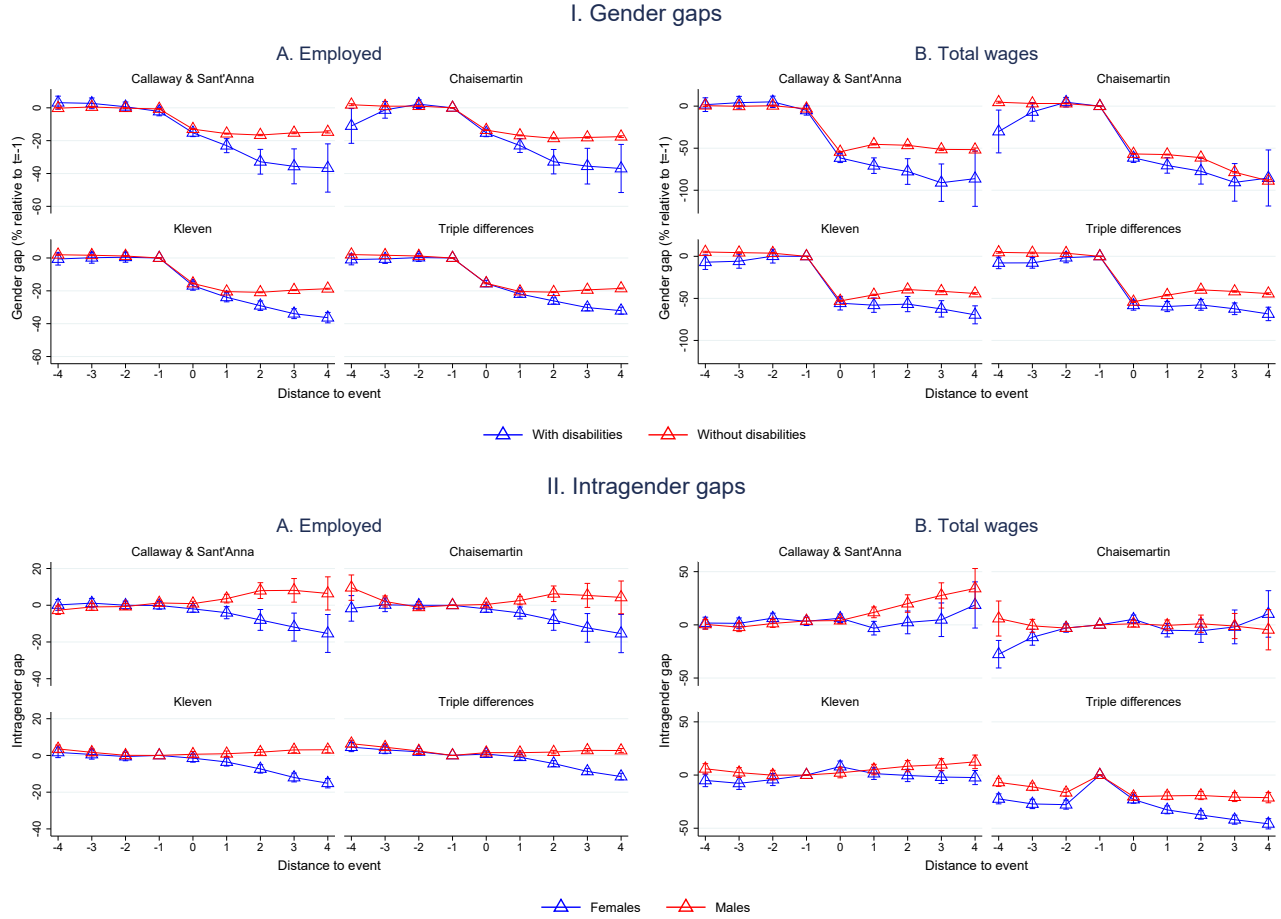


Figure A.6: Robustness to Different Specifications: Employment and Wages

Notes: Panel I shows normalized gender gaps, calculated as $\text{Gender gap}_t = (D_t^{\text{Female}} - D_t^{\text{Male}}) / \bar{Y}_B^{\text{Female}}$, where the gap is shown for parents of children with disabilities (in blue) and children without disabilities (in red). Panel II shows normalized intra-gender gaps due to childhood disability, calculated as $\text{Intra-gender gap}_t = (D_t^{\text{CwD}} - D_t^{\text{CwoD}}) / \bar{Y}_B^{\text{CwD}}$, where the gap is shown separately for females (in blue) and males (in red). The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals. The top-left subfigures are baseline results from estimates based on [Callaway and Sant'Anna \(2021\)](#). The top-right subfigures are results from estimates based on [de Chaisemartin and D'Haultfoeuille \(2022\)](#). The bottom-left subfigures are results from estimates based on [Kleven et al. \(2019a\)](#). The bottom-right subfigures are results from estimates based on [Kleven et al. \(2019a\)](#) using a triple difference.

D.2 Robustness

D.3 Heterogeneity

D.3.1 Singles

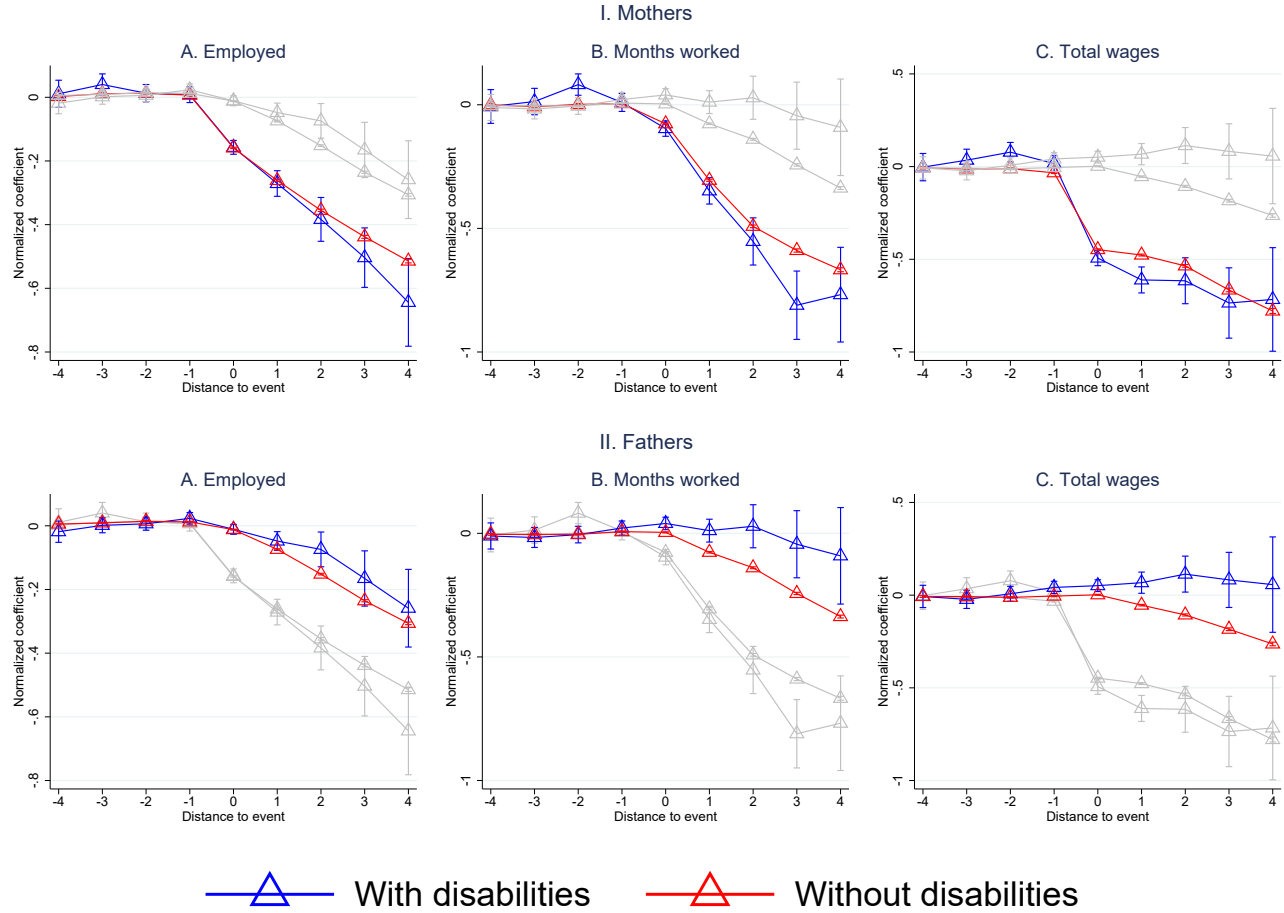


Figure A.7: Singles: Normalized Coefficients for Employment and Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

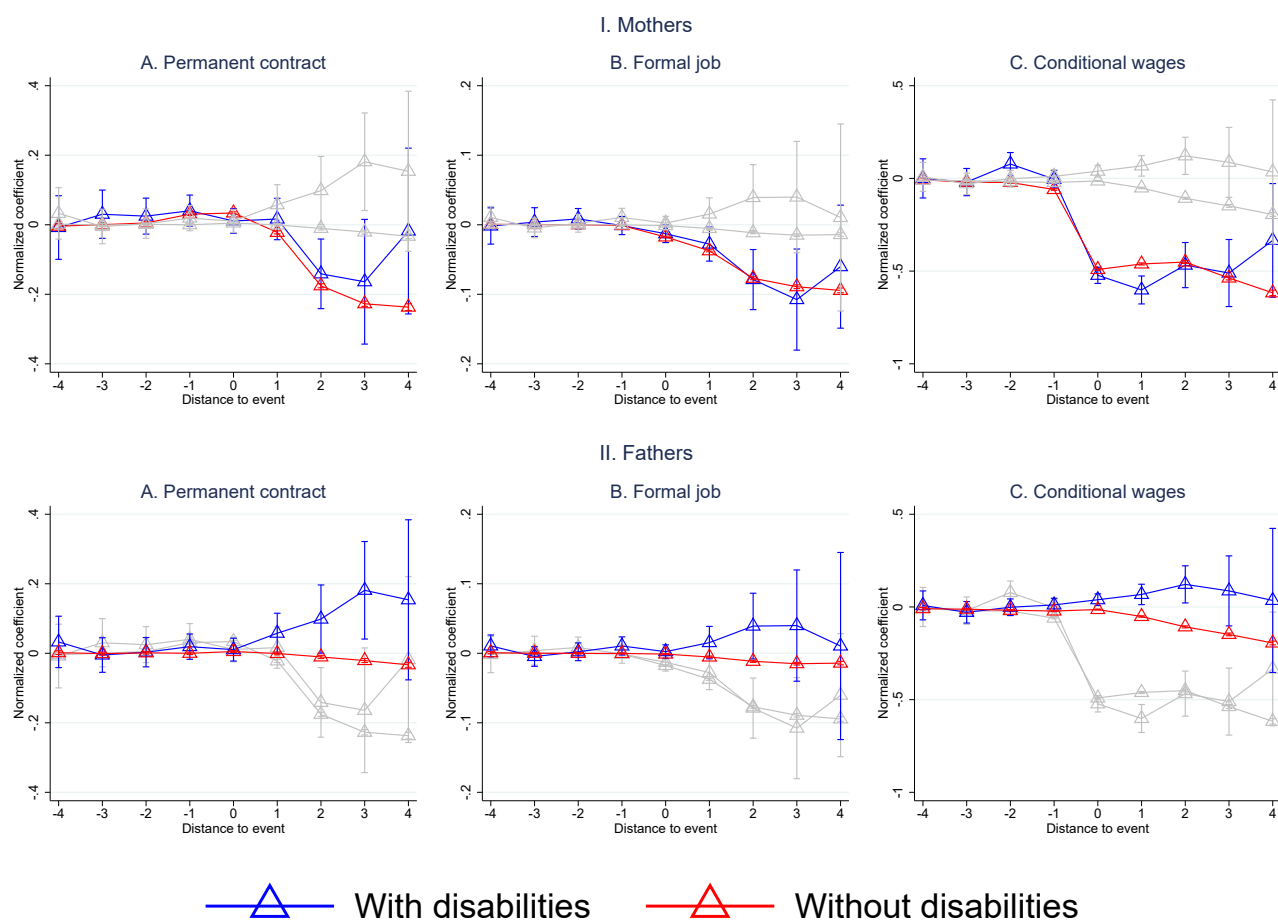


Figure A.8: Singles: Normalized Coefficients for Employment and Wages (conditional)

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

D.3.2 Married

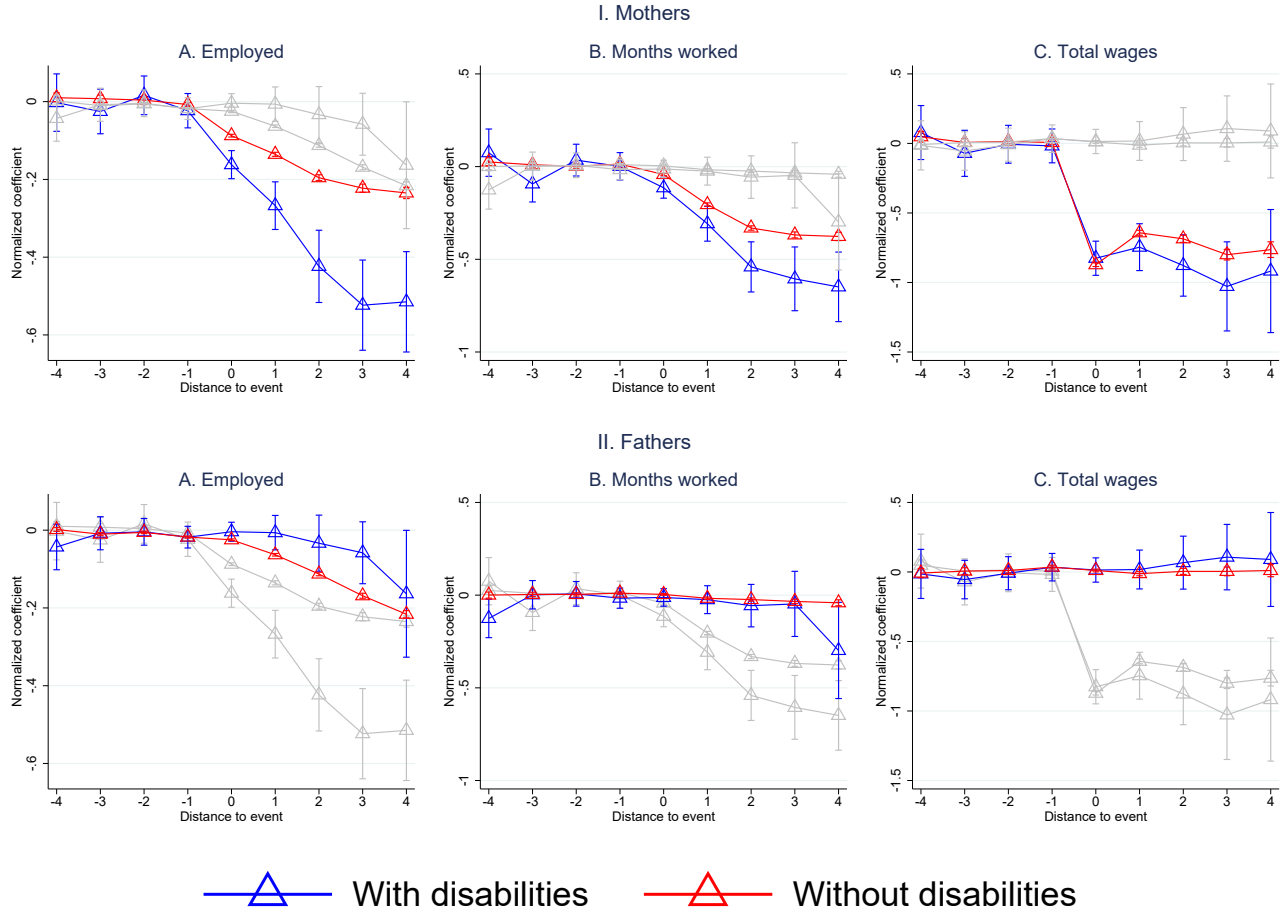


Figure A.9: Married: Normalized Coefficients for Employment and Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

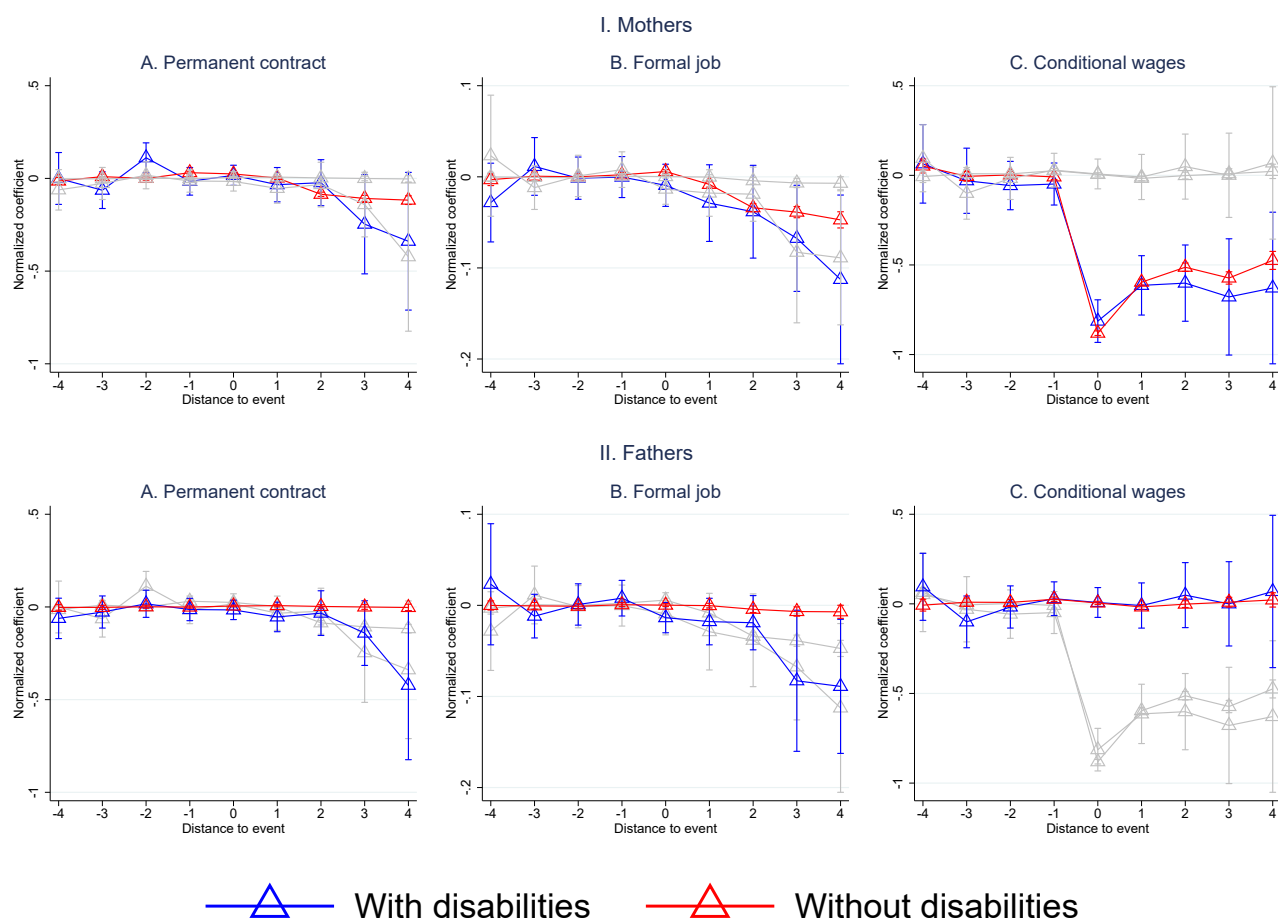


Figure A.10: Married: Normalized Coefficients, Employment and Wages (conditional)

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

D.3.3 Low Labor Attachment

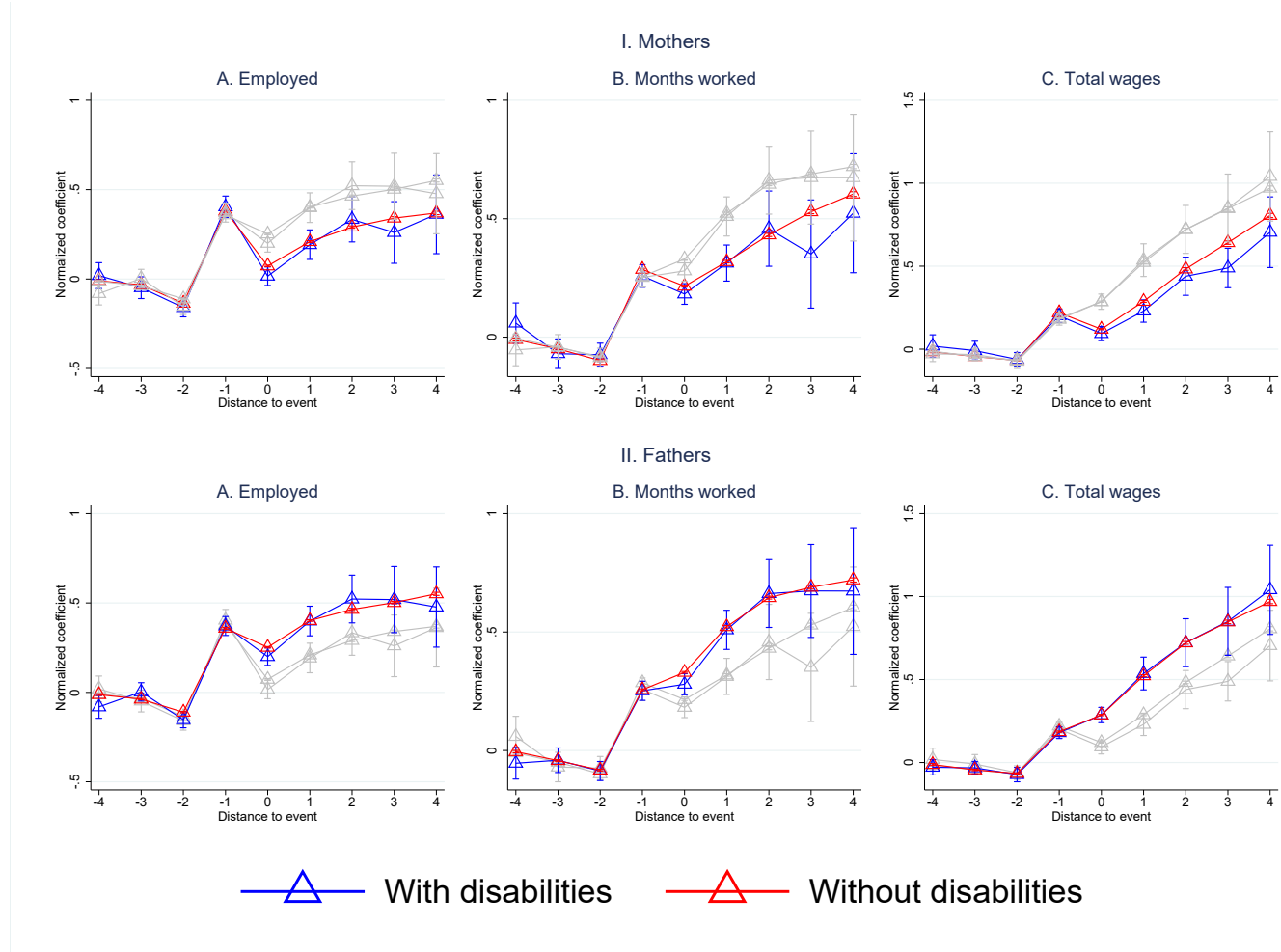


Figure A.11: Low Labor Attachment: Normalized Coefficients for Employment and Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

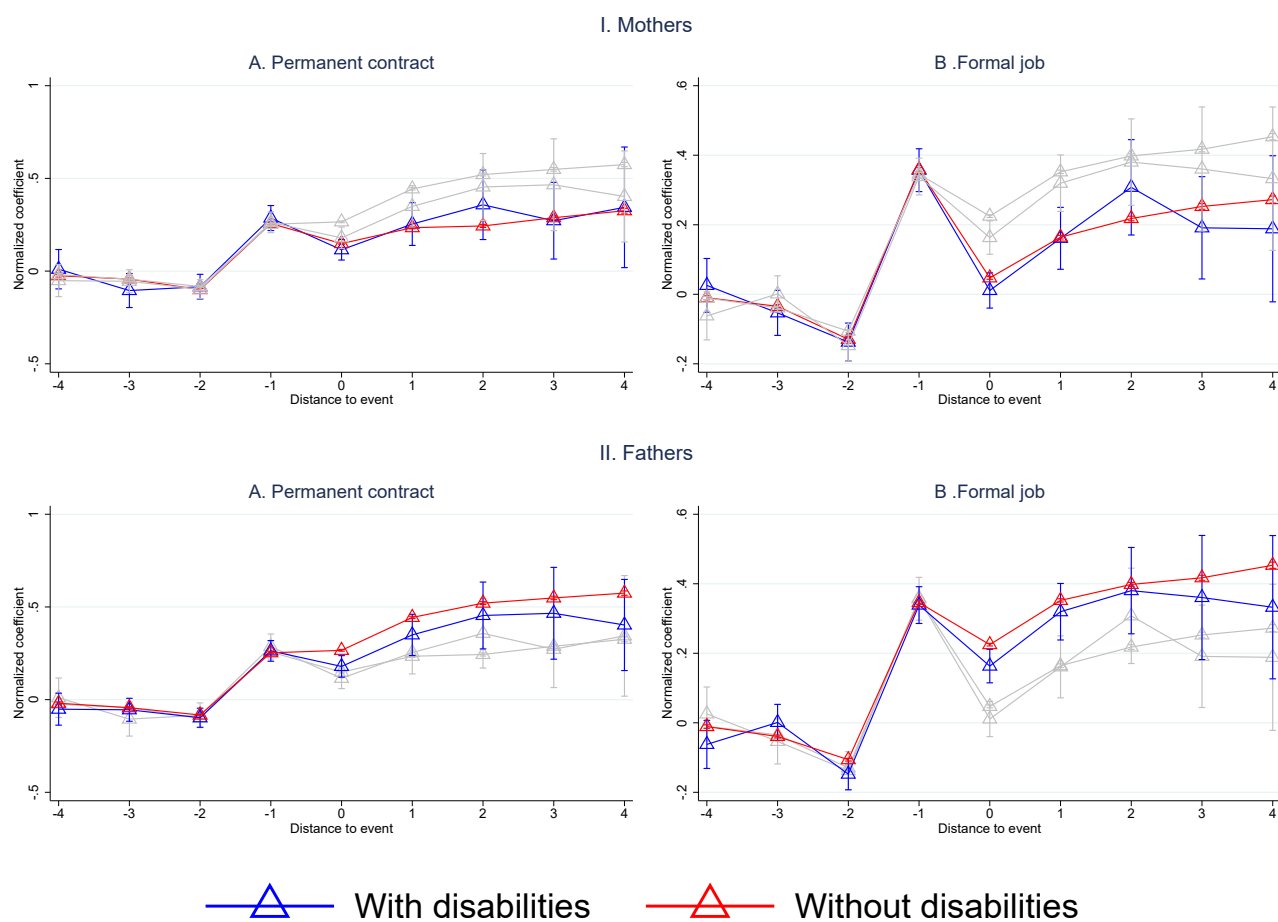


Figure A.12: Low Labor Attachment: Normalized Coefficients by Type of Employment

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

D.3.4 High Labor Attachment

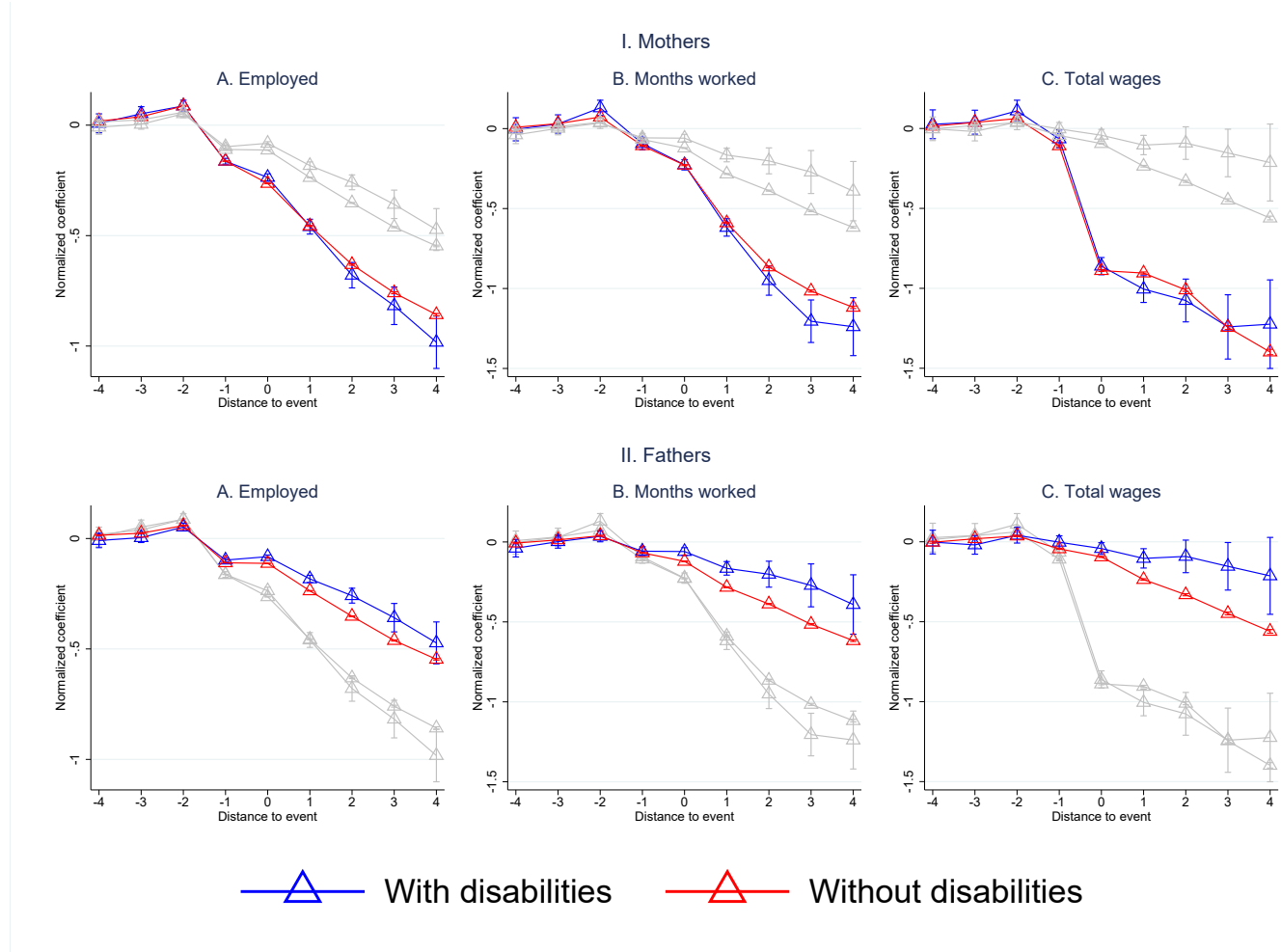


Figure A.13: High Labor Attachment: Normalized Coefficients for Employment and Wages

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.

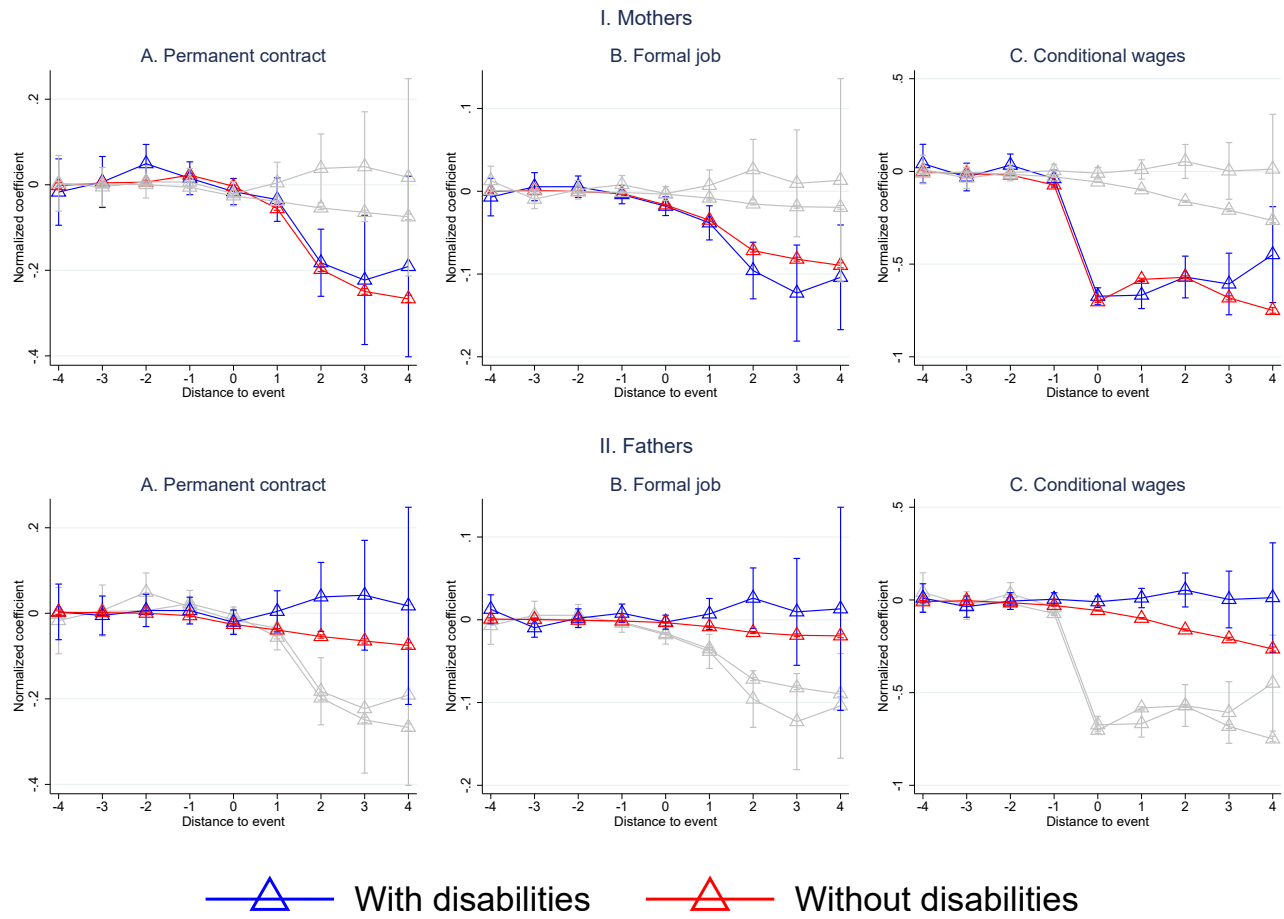


Figure A.14: High Labor Attachment: Normalized Coefficients for Employment and Wages (conditional)

Notes: Result from estimates based on [Callaway and Sant'Anna \(2021\)](#). Panel I shows results for females and Panel II shows results for males. Results for parents of children with disabilities are in blue. Results for parents of children without disabilities are in red. The normalization is given by $\bar{Y}_B^G$, where $\bar{Y}$ is the average of the outcome for group G at period B , with B set to -1 . Vertical lines correspond to 5% confidence intervals.