Children with Disabilities: Parental Labour-Market Penalties Worldwide

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Abstract

Today, an estimated 240 million children live with a disability worldwide. Although a child's disability can profoundly shape parents' family and economic lives, empirical evidence on its impact remains limited. Using census data from 27 countries, we provide the first cross-national comparative analysis of how child disability affects mothers' and fathers' employment trajectories. We implement pseudo–event-study models, constructing synthetic pre-birth employment trends by matching childless individuals to parents of children with and without disabilities on observable characteristics. In higher-income contexts, we document a sizable *child-disability penalty* in maternal employment—mothers of children with disabilities are substantially less likely to be employed than comparable mothers of non-disabled children—while fathers show only marginal effects. By contrast, in lower-income contexts, we find no significant effects for either parent. These results suggest that labour-market structures and broader socio-economic contexts crucially shape parents'—especially mothers'—employment responses to child disability.

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1 Introduction

According to the latest UNICEF (2021) report, nearly 240 million children under the age of 17, or 1 in 10 children, are estimated to have a disability. Rates are heterogeneous, ranging from 6% in Europe and Central Asia, to 10% in North and Latin America, and 15% in West and Central Africa. Recent literature in social sciences has started to acknowledge and document how the disability of a child is a relevant source of inequality for their parents, who are likely to be the main caregivers. For instance, there is evidence that parents of children with disabilities are more likely to experience worse mental and physical health (Balbo & Bolano 2024), higher distress and financial costs (Bourke-Taylor et al. 2014; Gallagher & Hannigan 2014; Majnemer et al. 2012), lower job satisfaction (Watt & Wagner 2013), divorce, separation or lower fertility (Hartley 2010; Loft 2011; Mailick Seltzer et al. 2001), and single-parenthood (Cohen & Petrescu-Prahova 2006).

The disability of a child can also significantly influence parents' labor market trajectories (Wondemu et al. 2022), although the strength and direction of this association are ambiguous. On the one hand, children with disabilities often require high levels of care and supervision (Brekke and Nadim 2017), which could be reflected in parents reducing their labor supply to attend to their children's needs. On the other hand, children with disabilities may need expensive medical treatment or therapies (Stabile and Allin 2012), potentially leading parents to increase their labor supply to provide financial support for the family. Having children is costly, and extensive research shows that women often bear the greatest economic burden compared to men—the so-called "child penalty" (e.g., Kleven et al. 2019, 2024). When children have disabilities, this penalty may be larger and both parents' may be affected. Yet, despite the global prevalence of childhood disability, its impact on parents' labour-market outcomes remains under-studied, with existing evidence drawn largely from Western, high-income contexts such as Europe (Gunnsteinsson and Steingrimsdottir 2019; Wondemu et al. 2022) or the United States (Powers 2001, 2003; Wasi et al. 2012).

This paper examines the effects of having a child with a disability on the employment trajectories of mothers and fathers, using a global comparative perspective. The extent to which the competing mechanisms discussed earlier may play a role depends indeed not only on individual or family-level factors but also on the broader macroeconomic and institutional context. In

high-development countries, the opportunity costs of raising a child with a disability are likely to be greater due to higher overall and female labor force participation rates and more formal labor market institutions. However, in these settings, public policies—such as disability benefits or subsidized healthcare—may help mitigate the financial strain of raising a child with a disability, potentially moderating the effect of child disability on parental labor supply. In contrast, opportunity costs may be lower in low- and middle-income countries, where informal labor market arrangements offer flexibility, and childcare responsibilities are more commonly shared within larger or extended households. Yet, parents in these contexts typically lack access to protections, benefits, or compensatory support, which may exacerbate employment vulnerabilities associated with raising a child with disabilities. Thus, how the impact of child disability on employment varies across economic and institutional contexts is an open empirical question, and it remains theoretically unclear which of these mechanisms will prevail.

Drawing on harmonized national census data from 27 countries, this study provides the first cross-national evidence on the spillover effects of child disability on parental employment, covering a range of low- to high-development countries. To date, the literature on the impacts of child disability is limited, and existing evidence is drawn from a handful of countries mostly high-income (Chen et al. 2023; Cheung et al. 2025; Gunnsteinsson and Steingrimsdottir 2019; Martínez and Smith 2023; Powers 2001, 2003; Wasi et al. 2012; Wondemu et al. 2022).[1] These studies generally find that, compared with mothers of non-disabled children, mothers of children with disabilities experience an extra fall in their employment likelihoods and earnings, while effects on fathers are typically weak or non-existent. Building on this literature, our substantive contribution is thus twofold: (1) to document *worldwide* employment patterns among mothers (fathers) of children with disabilities compared to mothers (fathers) of children without disabilities, quantifying the potential extra penalty gap between mothers (fathers) of disabled versus non-disabled children-—hereafter referred to as the 'child-disability penalty'—-, and (2) to relate these patterns and gaps to macro-level factors such as GDP, the Human Development Index, and the gender gap in employment.

To approximate the near-universe of children with disabilities, we rely on the largest available

[1] Specifically, Denmark (Gunnsteinsson and Steingrimsdottir 2019), US (Powers 2001, 2003; Wasi et al. 2012), Norway (Wondemu et al. 2022), Taiwan (Chen et al. 2023; Cheung et al. 2025) and Chile (Martínez and Smith 2023)

source: national population censuses. In fact, while child disability is relatively prevalent, it still affects a minority of children, requiring a large number of observations for the analysis. Nevertheless, by being cross-sectional in nature, censuses do not allow for longitudinal observation of individual's employment, so far a precondition to the estimation of the child penalty gap usually performed through an event study design. Additionally, child disability is often associated with certain parent-level characteristics (e.g., low socioeconomic background), which may confound the estimation of employment trajectories (Cheung et al. 2025). We address both challenges by estimating pseudo-event studies as in Kleven et al. (2024). In practice, we build synthetic pre-birth trends by matching mothers and fathers having a child with and without disability to childless women and men with the same observable characteristics.

Our findings indicate that in high-income countries, having a child with a disability has a significant negative impact on mothers' employment following childbirth compared to mothers of children without disabilities. By contrast, the effect on fathers is generally weaker and economically non-meaningful. In developing countries, we observe little to no effects of child disability on the employment trajectories of either parent. To further explore cross-country variation, we regress the estimated child disability penalties on country-level socio-economic indicators such as GDP per capita and the Human Development Index (HDI). The results reveal a positive association between a country's level of development and the magnitude of the child disability penalty among mothers, while no significant relationship is found for fathers.

With this paper, in addition to the literature on the employment penalty associated with having a child with a disability, we contribute to the broader literature examining the consequences on the labor market outcomes of mothers and fathers of children's health shocks. Specifically, earlier literature examined the spillover effects of severe child health conditions arising in childhood or adolescence, such as cancer diagnoses (Adhvaryu et al. 2022; Vaalavuo et al. 2023), child hospitalization or death (Breivik and Costa-Ramón 2024), or Type 1 diabetes diagnosis (Eriksen et al. 2021). These studies are typically set in a small number of high-income countries, such as Finland (Breivik and Costa-Ramón 2024; Van den Berg et al. 2017), Norway (Breivik and Costa-Ramón 2024), and Denmark (Adhvaryu et al. 2022; Eriksen et al. 2021). We contribute to this literature by focusing on child disability, which often originates congenitally or in early childhood and can shape parental employment trajectories from the earliest stages of parenthood. Additionally, by

adopting a global, comparative perspective, we provide, to our knowledge, one of the very first evidence of the causal effects on parental employment of a child health shock - broadly defined - in low-, middle-income countries. In this context, earlier research has primarily examined the labor market impacts of short-term health shocks (e.g., illnesses) experienced by working-age household members (Dureja and Negi 2022; Heath et al. 2022), with the effects of child health conditions on parental labor market outcomes remaining largely understudied.

The rest of the paper presents the data in Section 2, the empirical approach in Section 3, the results in Section 4, and the conclusions in Section 5.

2 Data

Our empirical analysis draws on the Integrated Public Use Microdata Series (IPUMS), a repository of nationally representative census samples harmonized by the Institute for Social Research and Innovation at the University of Minnesota. The IPUMS files typically represent 1%-10% random extracts of national populations and include extensive metadata (e.g., census questionnaires) enabling the comparability of censuses across countries. As our key variable of interest is the disability status of the first-born child in a family, from the full IPUMS inventory, we retain 27 countries for which a disability measure is available in at least one wave. Our sample thus defined comprises two countries from Europe, eight from South America, six from Asia, and eleven from Africa.

To construct the child disability indicator, we use IPUMS's already defined variable for household members' disability status. In the selected country-level censuses, the household head (or any responsible adult if the household head is absent) is asked to indicate the disability status of each household member. Given that the sample covers a range of different countries, the definitions of disability are heterogeneous. In some countries, disability is explicitly defined as a permanent impairment that limits activities of daily living ; in others, it is any limitation that persists for six months or more. In Table A.2 in the Appendix, we provide a detailed summary of how disability is defined in each country. We should note that, although disability status is self-reported and thus prevalence rates might reflect differences in wording and cultural perceptions, most censuses attempt to limit the scope for misclassification. Interviewers are often instructed to record a dis-

ability only if it is permanent and continues to limit the person's daily activities despite the use of aids such as glasses or hearing devices. Detailed guidance is also provided on what constitutes muteness, mental impairment, loss of limb function, and similar conditions.

Our dependent variable is employment, coded 1 if the respondent reports having a job or being employed during the reference week (typically the week prior to the survey) and 0 otherwise. For slightly more than half of the countries (see Table A.1 in the Appendix for more details), country-level censuses also include additional questions to ascertain whether individuals classified as 'employed' in previous question items were temporarily absent from work during the reference week. We mark individuals falling into this category as not employed. For countries where this information is not available, our employment indicator necessarily counts temporarily absent workers as employed.

For the purpose of our empirical strategy, we additionally retain a set of individual characteristics measured at the time of the census: education, marital status, urban residence, age, and year. Education is a categorical variable categorized into four mutually exclusive levels, capturing an individual's highest level of educational attainment (less than primary education, primary education, secondary education, and post-secondary education). Marital status is a categorical variable recoded into four categories (single or never married; married or in union; separated or divorced; widowed). Urban residence is a binary indicator equal to 1 if the respondent lives in an area designated as urban, 0 otherwise. Finally, age and year are continuous variables indicating individuals' age at the time of the census questionnaire and the year of such questionnaire, respectively.

Finally, to shed light on the cross-country heterogeneity of the estimated child-disability penalties, we complement individual-level control variables with country-level socio-economic indicators. Specifically, for each country in our sample, we construct three macro indicators: i) the (log) Gross Domestic Product (GDP) per capita, ii) the Human Development Index (HDI); and iii) the gender gap in labor force participation (LFP). GDP per capita, widely used as a proxy for a country's standard of living, is drawn from the World Development Indicators (World Bank 2025a). To mitigate the influence of extreme observations, we apply logarithmic transformations. HDI is a composite index that measures a country's average achievement across three core dimensions of human development, namely life expectancy at birth (health), expected and mean years of schooling (education), and gross national income per capita (standard of living). We draw HDI statistics

from the United Nations Development Program (United Nations Development Programme 2025). Finally, male (female) LFP rates are drawn from the World Bank (World Bank 2025b) and indicate the share of men (women) aged 15+ that is economically active (employed or actively seeking work). We construct the gender gap in LFP by subtracting women's LFP rate from men's LFP rate. The higher the LFP gender gap in a country, the more women are disproportionately under-employed compared to men. All indicators are measured with 2010 as the reference year, or the closest available year to the reference.

3 Empirical strategy

To estimate the impact of child disability on the employment trajectories of mothers and fathers, we employ the pseudo-event study methodology developed by Kleven et al. (2024). As the impact of parenthood likely depends on the parent's gender and the health status of the child, we estimate four separate regressions by gender and by whether the firstborn child has a disability, as follows:

$$Y_{it}^{g,d} = \sum_{t \neq -2} \delta_t^{g,d} D_{it} + \sum_j \beta_j^{g,d} A_{it} + \gamma_{it}^{g,d} + \varepsilon_{it}^{g,d} \tag{1}$$

where $Y_{it}^{g,d}$ indicates the employment status of individual i, of gender g=*man, woman* and with a firstborn child with health status d=d_1 *(disabled),* d_0 *(non-disabled)*, at event time t. Event time t refers to the year relative to childbirth and ranges from -5 to 10, with t=-2 (namely, two years before childbirth) used as a reference. D_{it} indicates event time dummies, with $\delta^{g,d}$ thus being the effect of childbirth for an individual of gender g and child disability status d, in the event time t. Further, A_{it} represents age dummies which control nonparametrically for underlying life-cycles trends, while $\gamma_t^{g,d}$ are year dummies that control nonparametrically for time trends.

Following Kleven et al. (2019), we use the event-time estimated coefficients $\hat{\delta}^{g,d}$ obtained in Equation 1 to compute the impact of child disability on men's and women's employment trajectories in percentage terms. That is, we calculate the year-t effects of parenthood as a percentage of the counterfactual outcome of not having children:

$$P_t^{g,d} = \frac{\hat{\delta}_t^{g,d}}{E[\tilde{Y}_{it}^{g,d} \mid t]}, \tag{2}$$

where $P_t^{g,d}$ is the predicted outcome from (1) when omitting the contribution of the event time coefficients. Finally, separately for men and women, we define the child disability penalty (CDP) on employment as the difference in the average employment effect of having a child with a disability compared to having a child without a disability:

$$\text{Child Disability Penalty}^g \equiv \left(\mathbb{E}[P_{t\geq 0}^{g,d_0}] - \mathbb{E}[P_{t<0}^{g,d_0}]\right) - \left(\mathbb{E}[P_{t\geq 0}^{g,d_1}] - \mathbb{E}[P_{t<0}^{g,d_1}]\right) \tag{3}$$

The event-study approach is easily implemented in a setting where panel datasets are available, yet given the worldwide scope of this paper we are unable to perform this study using longitudinal data sources. Following Kleven et al. (2024), we implement a pseudo-panel approach, using a matching procedure to construct a synthetic panel of men and women observed at different time points relative to the birth of their first child. This application requires allocating individuals to specific event times relative to first child birth. The main issue of this method regards individuals observed without children, as the cross-sectional nature of the data prevents us from observing whether—and when—they eventually become parents. To overcome this limitation we create surrogate observations at negative event times through matching on observable characteristics. In practice, we match a parent i (with or without a disabled child) observed at event time $t \in [0,5]$ in calendar year y with age a and characteristics X_i, to a childless individual j observed in the same calendar year y but with age $a-n$ and X_j characteristics, where $X_j = X_i$ and $n = t,...,t+5$.[2] Other than on age and gender, we match on educational level, marital status and a dummy for living in a rural vs urban area (when available).

[2]Note that our formulation differs slightly from that of Kleven et al. (2024) for two main reasons. First, although Kleven et al. (2024) match individuals based on calendar year as an additional variable, we are unable to do so because we lack annual repeated cross-sectional data for any of our countries. Second, to ensure that the synthetic pre-childbirth trends are constructed using a sufficiently large number of parents with disabled children, we do not restrict the matching to individuals observed only at $t = 0$. Instead, we include observations up to five years post-childbirth ($t \leq 5$). However, our results are robust to applying the matching on individuals observed in $t = 0$ only.

4 Results

4.1 The child disability penalties

We present the results by continent. To save space, we include in the main text the child disability penalty estimations for a subset of countries, whereas we refer to Figure A.1 in the Appendix for full set of event studies. For every event study, we test whether each time-to-event coefficient differs statistically between women (men) with a child with a disability and women (men) with a child without a disability, and show the results in Figure A.2 in the Appendix.

We show the results for Europe in Figure 1. Among women, both Ireland and Poland exhibit large child disability penalties, amounting to 14% and 20% respectively. The differences in post-childbirth coefficients between the disability and the non-disability groups are most often significant in Ireland, while they are consistently significant in Poland. Among men, the child disability penalty remains notable in Ireland (12%) but is less pronounced in Poland (6%).

The pattern detected across African countries, as shown in Figure 2, is largely homogeneous but goes in a different direction. In most cases, there is no significant penalty associated with having a child with a disability, neither for women nor for men. This suggests that in these predominantly low-income countries, not only is parenthood itself not associated with an employment penalty (see Kleven et al. 2024), but also that child health shocks do not appear to matter. However, there are a few notable exceptions. First, among low-income countries, Zambia shows negative child disability penalties both among women (-34%) and men (-10%), meaning that child disability is reflected in higher parental labor supply. Second, countries with higher levels of development, namely Egypt and South Africa, appear to fall into the pattern of (positive) child disability penalties. Egypt exhibits the highest female child disability penalty among all countries examined (69%), with no child disability penalty among men. South Africa also shows a clear and significant child disability penalty among women (22%), and a lower but mostly not meaningful penalty among men (6%).

The results for Asian countries are heterogeneous, as shown in Figure 3. Bangladesh and the Philippines do not exhibit any significant child disability penalty for either women or men. In contrast, Nepal shows a *negative* child disability penalty for women (-18%), indicating that mothers

increase their labor supply after having a first child with a disability, whereas no child penalty is observed for men. Finally, Turkey—a country with an upper-middle level of development—shows a positive child disability penalty among women (13%), although the differences between the disability and non-disability groups are often not statistically significant. No meaningful penalty is detected for men.

Finally, Figure 4 shows our findings for Latin American countries. Although some heterogeneity emerges in this context as well, these mostly upper-middle-income countries commonly show a positive penalty associated with having a child with a disability for women. This penalty amounts to 12% in Peru, 16% in Chile, 8% in Mexico, and 11% in Venezuela. No meaningful penalty is detected for men.

4.2 Child disability penalties and socio-economic indicators

In Figure 5 we fit linear regressions and descriptively show, separately for men and women, the associations between the estimated child disability penalties and three socio-economic indicators: log GDP per capita (Panel a), HDI (Panel b), and labor force participation gender gap (Panel c). In Panel a, our results show that, among women, countries with high or upper-middle levels of GDP per capita (e.g., Ireland, Brazil, or South Africa) show consistently positive and large employment penalties associated with having a first child with a disability. By contrast, countries with lower-middle and low levels of development (e.g., Bangladesh, Ethiopia) show substantially smaller or even negative child disability penalties. A similar pattern is detected in Panel b when HDI is considered, as countries with higher levels of human development tend to show larger child disability penalties compared to countries with lower levels of human development. Overall, these results suggest a positive correlation between a country's level of development and child disability penalty among women, whereas for men the relationship, albeit positive, is much weaker and less meaningful.

In Panel C, we fit linear regressions relating child disability penalties to a country's gender gap in labor force participation. The results reveal a positive relationship between the two dimensions, as in countries where men are substantially more likely to be employed than women (e.g., Turkey or Egypt), the estimated child disability penalty for women is higher. In contrast, countries with narrower gender gaps in labor force participation tend to exhibit lower penalties. It is important

to note, however, that a smaller gender gap in labor force participation does not necessarily indicate greater gender equality. Many countries with low labor force participation gaps are located in Africa, where overall gender inequality remains high. These are typically low-income, predominantly agrarian economies characterized by low GDP or HDI scores but relatively high female labor force participation. In such contexts, the absence of a child disability penalty may reflect limited labor market flexibility for women in response to household shocks, rather than a more equitable division of domestic responsibilities. For men, no significant relationship is observed between the labor force participation gap and the child disability penalty.

5 Conclusion

This paper offers the first global, comparative evidence on how having a child with a disability affects the employment trajectories of mothers and fathers relative to those with non-disabled children. Using census data from 27 countries across Europe, Africa, Asia, and Latin America, we find that child disability significantly reduces mothers' post-birth employment likelihood, while effects on fathers are generally weaker and often statistically insignificant. However, we observe substantial cross-country heterogeneity. Interestingly, what we term the "child disability penalty" is most pronounced in higher-development contexts—including European countries, South Africa, and Brazil—whereas it is minimal or absent in lower-development countries such as Rwanda or Ethiopia. Regressions using country-level GDP per capita and Human Development Index (HDI) confirm these patterns, as greater socioeconomic development is associated with larger employment penalties for mothers, with no consistent relationship observed for fathers.

These findings are preliminary. As next steps, we plan to – and we are already in the process of – estimating child disability penalties in additional high-income countries using survey data from the US (PSID), Germany (GSOEP), the UK (BHPS), Australia (HILDA), and administrative records from Finland, Sweden, and Norway. Including these countries will allow us to investigate whether differences in welfare regimes moderate the employment impacts of child disability.

Tables and Figures

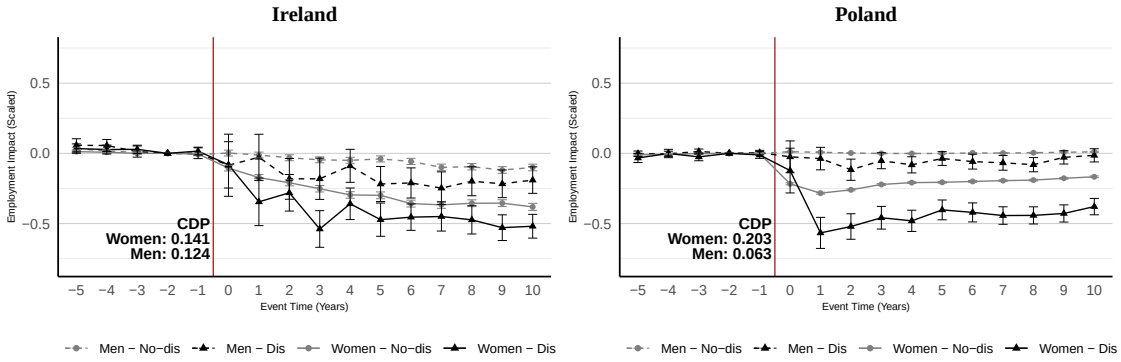


Figure 1: Child disability penalty in European countries

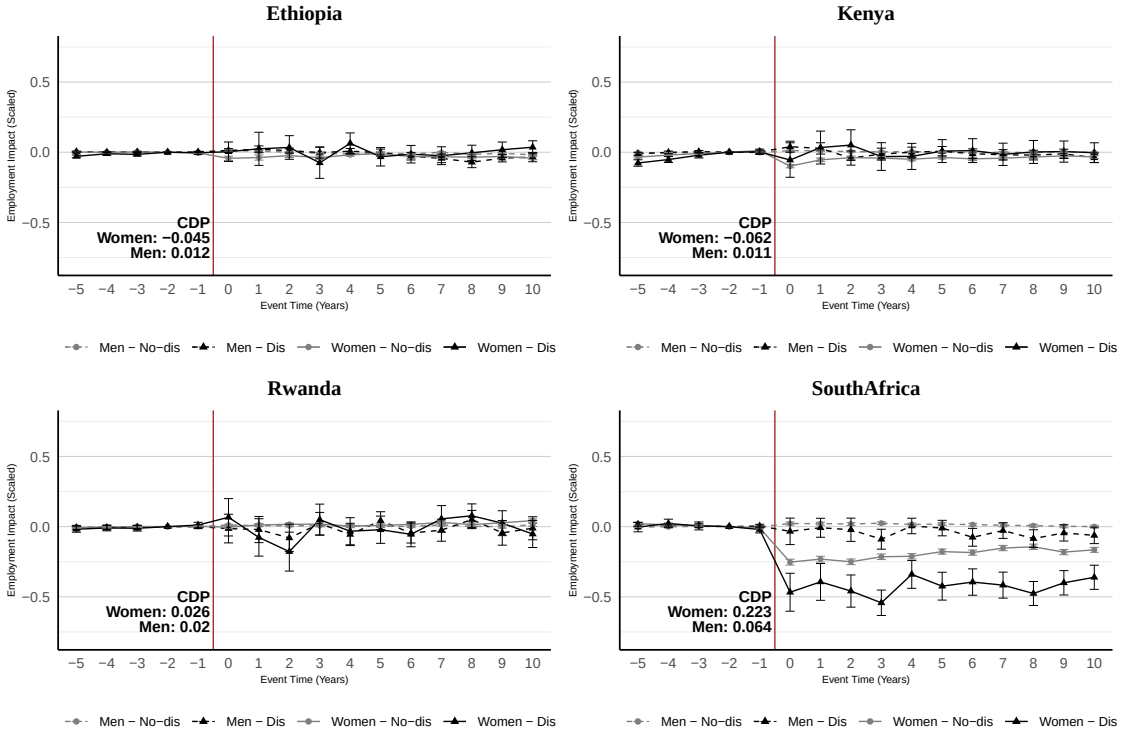


Figure 2: Child disability penalty in African countries

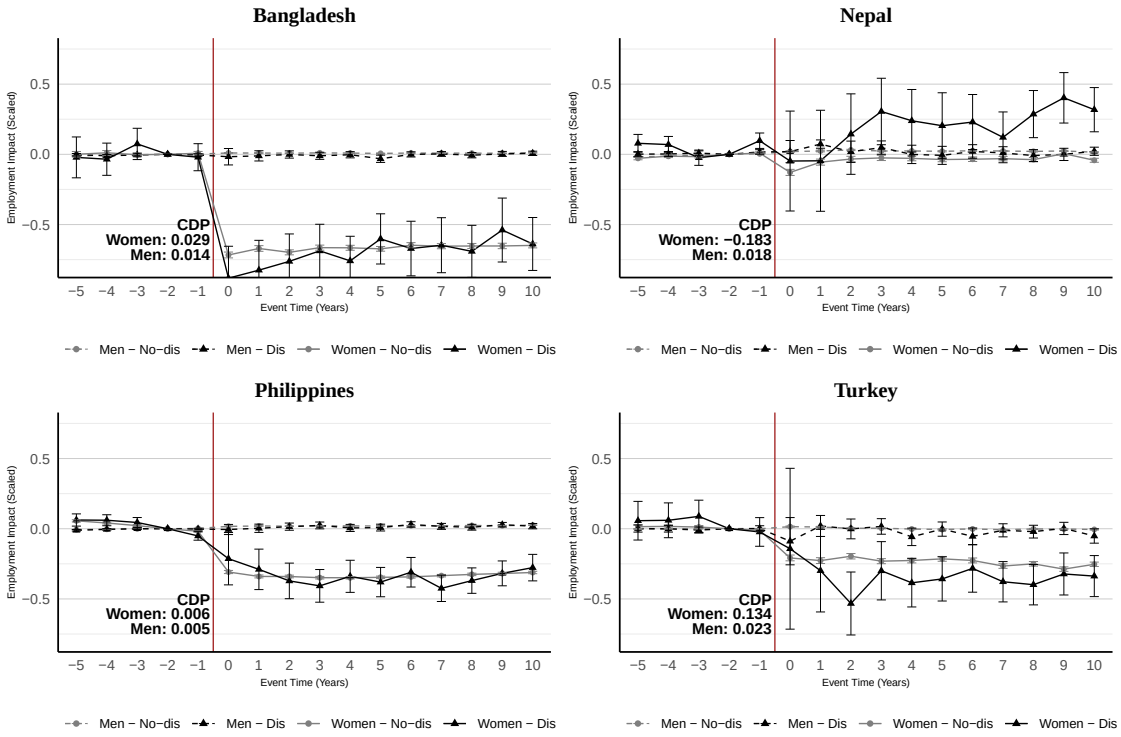


Figure 3: Child disability penalty in Asian countries

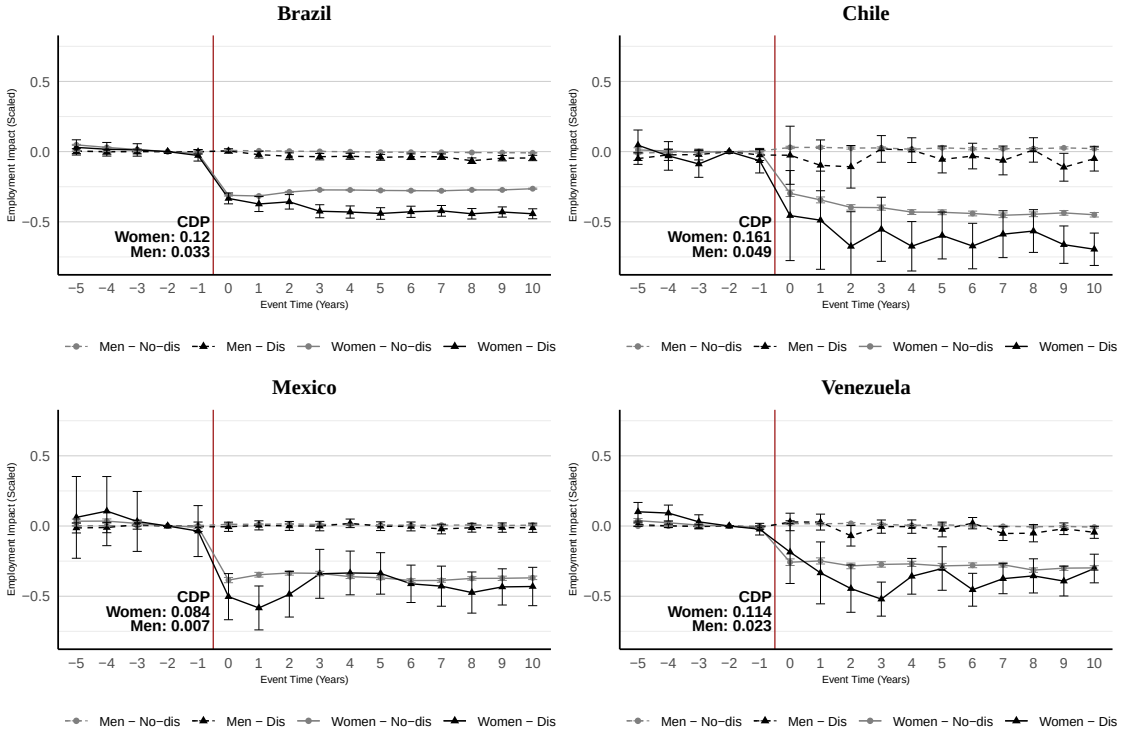
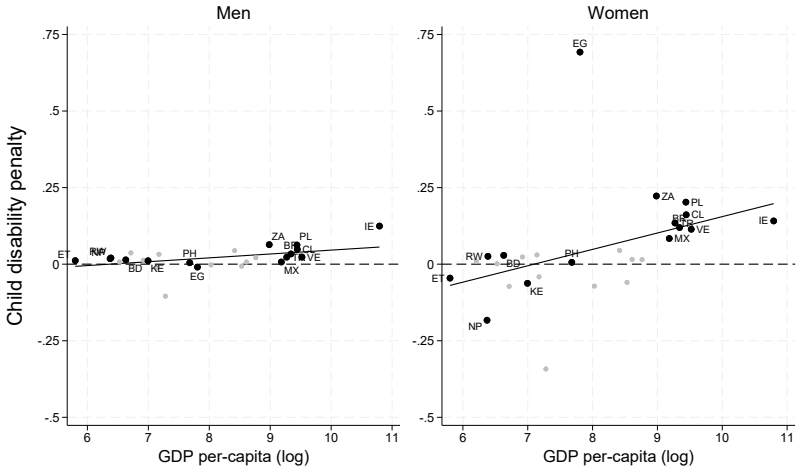
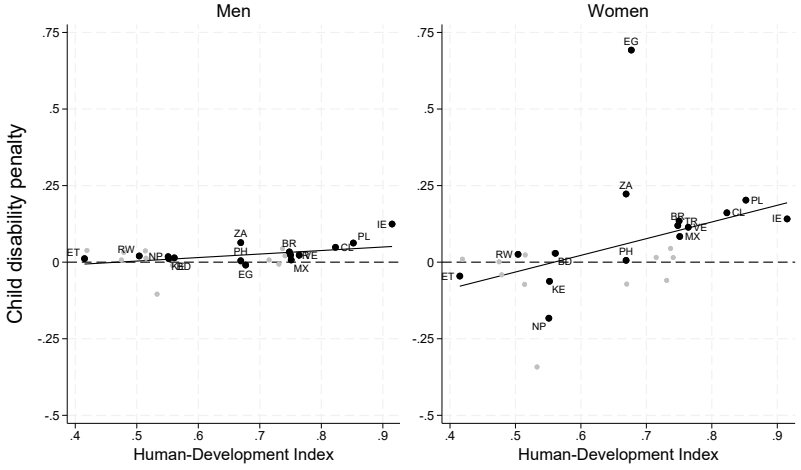


Figure 4: Child disability penalty in Latin American countries

(a)



(b)



(c)

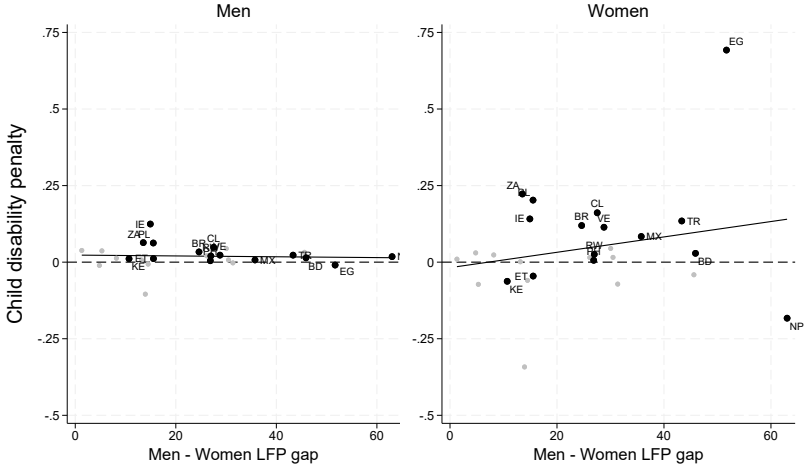


Figure 5: Correlations between men's and women's child disability penalties and log GDP per capita (panel a), Human Development Index (panel b), and labor force employment gap between men and women (panel c)

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Online Appendix

Appendix A. Supplementary Tables and Figures

Table A.1: Summary of data used for the analysis

Country	Years	No. Waves	Work leave
Bangladesh	2011	1	No
Brazil	1991-2010	3	Yes
Chile	1992-2002	2	No
Colombia	1993-2005	2	Yes
Dominican Republic	2002-2010	1	No
Ecuador	2001-2010	2	Yes
Egypt	1986-2006	3	No
Ethiopia	1984-2007	3	Yes
Ghana	2010	1	Yes
Indonesia	1980-2010	2	Yes
Ireland	2011	1	No
Kenya	2009	1	Yes
Malawi	2008	1	Yes
Mexico	2000-2020	3	Yes
Mozambique	1997-2007	2	Yes
Myanmar	2014	1	No
Nepal	2001-2011	2	No
Peru	1993-2017	2	Yes
Philippines	1990-2010	4	No
Poland	1978-2002	2	No
Rwanda	2002-2012	2	No
South Africa	1996-2007	3	No
Sudan	2008	1	Yes
Turkey	1985-2000	2	Yes
Uganda	1991-2014	3	No
Venezuela	1990-2001	2	Yes
Zambia	1990-2010	3	Yes

Table A.2: Operational definitions of the binary disability indicator (*DISABLED*=1) in the study countries

Country	**Definition**
Bangladesh	Reports difficulty moving, seeing, hearing, speaking, or learning (0 = none).
Brazil	Significant difficulty seeing, hearing, walking, or permanent mental/intellectual impairment or limb loss.
Chile	Reports difficulty in vision, hearing, speech, physical mobility, or mental function (0 = none; permanence implicit).
Colombia	Permanent functional difficulty in vision, hearing, mobility, self-care, or cognition, even when using aids.
Dominican Republic	Permanent difficulty seeing (even with glasses) or other listed impairments:hearing, speech, physical, mental, even when using aids.
Ecuador	Any permanent difficulty performing a normally expected activity, even with sensory aids.
Egypt	Respondent reports a physical, sensory, or mental problem that has lasted $\geq$ **6 months** and limits independent living.
Ethiopia	Binary yes/no question on "any disability" (broad self-report).
Ghana	Task restriction persists despite aids; includes sensory, physical, emotional, or mental impairment.
Indonesia	Difficulty seeing, hearing, walking, remembering/concentrating, or communicating, even with sensory aid.
Ireland	Respondent ticks "yes" to any difficulty in sensory, physical, cognitive, self-care, mobility, or work-related functions.
Kenya	Reports "*a lot of difficulty*" / "*cannot do*" in seeing, hearing, walking, memory, self-care, communication, or albinism (0 = no/some difficulty).
Malawi	2008: any physical or mental handicap limiting work/normal life. 2018: "a lot of difficulty" / "cannot do" when it comes to seeing, hearing, walking, memory and self-care (0 = no/some difficulty).
Mexico	Limitation lasting $\geq$ **6 months** in moving, seeing, hearing, or mental function; coded 1 if "a lot of difficulty" / "unable" (0 = no/some difficulty).
Mozambique	Reports loss or serious difficulty in sight, hearing, limbs, paralysis, mental or memory issues, walking, or other listed conditions.
Myanmar	"A lot of difficulty" / "cannot do" in seeing (with glasses), hearing, walking, or remembering.
Nepal	Respondent declares a physical or mental disability, or self-identifies as deaf or blind (permanent impairment implied).
Peru	Functional difficulty in vision, hearing, mobility, self-care, or cognition, even with aids.
Philippines	Any impairment reported to limit normal daily or economic activities.
Poland	Any limitation lasting $>$ **6 months** that restricts work, schooling, or daily activities (all severity levels included).
Rwanda	Flagged if respondent states "a lot of difficulty" / "cannot do" in everyday tasks (0 = no/some difficulty).
South Africa	Marks one or more "serious" conditions: sight, hearing, physical, communication, intellectual, emotional, mental,lasting $\geq$ **6 months**.
Sudan	Reports difficulty moving, seeing, hearing, speaking, or learning (0 = none).
Turkey	Reports difficulty moving, seeing, hearing, speaking, or learning (0 = none).
Uganda	1991: any condition limiting kind/amount of activity. 2001+: same plus duration criterion of $\geq$ **6 months**.
Venezuela	Any self-reported physical or mental limitation (0 = none).
Zambia	Long-term ($>$ **6 months**) physical or mental impairment restricting normal activities (short-term conditions excluded).

Table A.3: Descriptive statistics

	Men			**Women**		
	Child with disability	Child w/o disability	Diff.	Child with disability	Child w/o disability	Diff.
Country: Bangladesh						
Age at parenthood	30.116	29.397	0.719***	26.544	25.466	1.078***
Less than primary education	0.601	0.548	0.053***	0.719	0.614	0.105***

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	Men			Women		
	Child with disability	Child w/o disability	Diff.	Child with disability	Child w/o disability	Diff.
Primary education at most	0.266	0.289	-0.023***	0.219	0.281	-0.062***
Secondary education degree	0.096	0.110	-0.014***	0.049	0.080	-0.031***
Tertiary education degree	0.037	0.053	-0.016***	0.013	0.026	-0.013***
Married	0.991	0.995	-0.005***	0.844	0.929	-0.085***
Divorced	0.001	0.000	0.000	0.007	0.004	0.004***
Widowed	0.009	0.004	0.005***	0.148	0.067	0.081***
Rural	0.812	0.769	0.043***	0.831	0.788	0.043***
Urban	0.188	0.231	-0.043***	0.169	0.212	-0.043***
Observations	177,117	5,518,374		222,934	5,682,259	
Country: Brazil						
Less than primary education	0.713	0.539	0.174***	0.708	0.501	0.207***
Primary education at most	0.161	0.229	-0.067***	0.153	0.219	-0.066***
Secondary education degree	0.094	0.172	-0.077***	0.104	0.203	-0.099***
Tertiary education degree	0.032	0.061	-0.029***	0.036	0.078	-0.042***
Single	0.001	0.001	-0.000	0.012	0.013	-0.000
Married	0.943	0.969	-0.026***	0.658	0.796	-0.138***
Divorced	0.021	0.018	0.003***	0.146	0.116	0.031***
Widowed	0.035	0.013	0.022***	0.183	0.076	0.107***
Rural	0.285	0.243	0.042***	0.236	0.207	0.029***
Urban	0.715	0.757	-0.042***	0.764	0.793	-0.029***
Observations	177,117	5,518,374		222,934	5,682,259	
Country: Chile						
Less than primary education	0.393	0.195	0.198***	0.454	0.223	0.231***
Primary education at most	0.416	0.452	-0.036***	0.389	0.432	-0.043***
Secondary education degree	0.162	0.295	-0.132***	0.143	0.306	-0.164***
Tertiary education degree	0.029	0.058	-0.029***	0.015	0.039	-0.024***
Single	0.021	0.018	0.003	0.056	0.055	0.002
Married	0.900	0.944	-0.044***	0.678	0.809	-0.131***
Divorced	0.020	0.018	0.001	0.069	0.058	0.011***
Widowed	0.060	0.020	0.040***	0.196	0.078	0.119***
Rural	0.202	0.148	0.054***	0.181	0.131	0.050***
Urban	0.798	0.852	-0.054***	0.819	0.869	-0.050***
Number of Observations	6,138	379,128		7,693	412,302	
Country: Egypt						
Less than primary education	0.716	0.535	0.181***	0.834	0.610	0.225***
Primary education at most	0.078	0.077	0.002	0.042	0.050	-0.008***
Secondary education degree	0.142	0.257	-0.114***	0.092	0.242	-0.150***
Tertiary education degree	0.063	0.131	-0.069***	0.031	0.098	-0.067***
Single	0.001	0.001	0.000	0.000	0.000	0.000
Married	0.959	0.984	-0.025***	0.739	0.897	-0.158***

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	Men			Women		
	Child with disability	Child w/o disability	Diff.	Child with disability	Child w/o disability	Diff.
Divorced	0.002	0.002	0.000	0.011	0.007	0.004***
Widowed	0.038	0.014	0.024***	0.250	0.096	0.154***
Marital status missing	0.000	0.000	-0.000**	0.000	0.000	-0.000*
Rural	0.603	0.551	0.052***	0.588	0.520	0.068***
Urban	0.397	0.449	-0.052***	0.412	0.480	-0.068***
Number of Observations	11,762	2,005,710		12,226	1,701,329	
Country: Ethiopia						
Less than primary education	0.693	0.554	0.139***	0.744	0.631	0.113***
Primary education at most	0.025	0.039	-0.014***	0.006	0.012	-0.006***
Secondary education degree	0.007	0.013	-0.006***	0.002	0.006	-0.004***
Tertiary education degree	0.002	0.002	0.000	0	0.001	-0.000*
Education missing	0.273	0.392	-0.119***	0.248	0.351	-0.103***
Single	0.005	0.004	0.002***	0.003	0.002	0.000
Married	0.712	0.602	0.110***	0.559	0.548	0.011***
Divorced	0.009	0.006	0.003***	0.063	0.039	0.024***
Widowed	0.016	0.007	0.009***	0.128	0.060	0.068***
Marital status missing	0.258	0.382	-0.124***	0.247	0.350	-0.103***
Rural	0.890	0.881	0.009***	0.862	0.862	-0.000
Urban	0.110	0.119	-0.009***	0.138	0.138	0.000
Number of Observations	24,051	1,691,007		26,042	1,392,614	
Country: Ireland						
Primary at most	0.426	0.321	0.105***	0.383	0.262	0.121***
Secondary education degree	0.348	0.398	-0.050***	0.402	0.440	-0.038***
Tertiary education degree	0.173	0.240	-0.067***	0.175	0.263	-0.088***
Education missing	0.052	0.041	0.011**	0.040	0.035	0.005
Single	0.070	0.082	-0.012**	0.139	0.134	0.005
Married	0.854	0.873	-0.019**	0.639	0.740	-0.101***
Divorced	0.037	0.028	0.009**	0.106	0.072	0.034***
Widowed	0.039	0.017	0.022***	0.115	0.054	0.061***
Rural	0.417	0.425	-0.007	0.380	0.404	-0.025***
Urban	0.583	0.575	0.007	0.620	0.596	0.025***
Number of Observations	3,697	53,747		4,981	63,822	
Country: Kenya						
Less than primary education	0.358	0.261	0.097***	0.527	0.350	0.177***
Primary education at most	0.418	0.419	-0.001	0.337	0.397	-0.060***
Secondary education degree	0.190	0.279	-0.089***	0.115	0.228	-0.113***
Tertiary education degree	0.017	0.028	-0.010***	0.007	0.015	-0.008***
Education missing	0.017	0.013	0.004**	0.014	0.010	0.004***
Single	0.002	0.002	-0.000	0.027	0.034	-0.007***
Married	0.972	0.981	-0.009***	0.777	0.853	-0.076***

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	Men			Women		
	Child with disability	Child w/o disability	Diff.	Child with disability	Child w/o disability	Diff.
Divorced	0.007	0.007	0.000	0.033	0.029	0.004*
Widowed	0.019	0.010	0.009***	0.163	0.083	0.080***
Rural	0.743	0.649	0.095***	0.756	0.659	0.097***
Urban	0.257	0.351	-0.095***	0.244	0.341	-0.097***
Number of Observations	10,117	365,103		12,232	356,350	
Country: Mexico						
Less than primary education	0.492	0.307	0.184***	0.549	0.335	0.214***
Primary education at most	0.368	0.474	-0.107***	0.329	0.444	-0.115***
Secondary education degree	0.070	0.128	-0.058***	0.069	0.142	-0.073***
Tertiary education degree	0.048	0.080	-0.032***	0.027	0.067	-0.039***
Education missing	0.023	0.010	0.013***	0.026	0.013	0.013***
Single	0.003	0.003	0.000	0.022	0.022	0.000
Married	0.935	0.961	-0.026***	0.737	0.823	-0.086***
Divorced	0.011	0.013	-0.002***	0.066	0.070	-0.004**
Widowed	0.050	0.024	0.027***	0.174	0.086	0.088***
Marital status missing	0.002	0.000	0.001***	0.002	0.000	0.001***
Rural	0.477	0.436	0.042***	0.457	0.410	0.047***
Urban	0.523	0.564	-0.042***	0.543	0.590	-0.047***
Number of Observations	40,070	2,412,714		44,506	2,413,450	
Country: Nepal						
Less than primary education	0.680	0.580	0.100***	0.887	0.794	0.093***
Primary education at most	0.182	0.201	-0.019***	0.055	0.090	-0.034***
Secondary education degree	0.107	0.161	-0.054***	0.032	0.080	-0.049***
Tertiary education degree	0.020	0.044	-0.023***	0.004	0.013	-0.009***
Education missing	0.011	0.015	-0.004***	0.022	0.023	-0.001
Single	0.001	0.002	-0.001	0.000	0.001	-0.000
Married	0.954	0.977	-0.023***	0.908	0.960	-0.052***
Divorced	0.002	0.001	0.001	0.004	0.003	0.001
Widowed	0.042	0.019	0.023***	0.087	0.036	0.051***
Marital status missing	0.000	0.001	-0.001**	0.000	0.000	-0.000
Rural	0.872	0.779	0.093***	0.878	0.793	0.085***
Urban	0.128	0.221	-0.093***	0.122	0.207	-0.085***
Number of Observations	8,487	629,201		8,574	560,393	
Country: Philippines						
Less than primary education	0.303	0.224	0.079***	0.299	0.196	0.102***
Primary education at most	0.326	0.328	-0.002	0.347	0.336	0.011***
Secondary education degree	0.278	0.337	-0.059***	0.242	0.327	-0.086***
Tertiary education degree	0.080	0.096	-0.017***	0.098	0.124	-0.026***
Education missing	0.013	0.015	-0.002*	0.014	0.016	-0.001
Single	0.001	0.001	0.001*	0.003	0.003	0.001*

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	Men			Women		
	Child with disability	Child w/o disability	Diff.	Child with disability	Child w/o disability	Diff.
Married	0.941	0.969	-0.029***	0.804	0.902	-0.098***
Divorced	0.008	0.006	0.002**	0.016	0.013	0.003**
Widowed	0.050	0.024	0.026***	0.176	0.081	0.095***
Rural	0.131	0.102	0.028***	0.127	0.096	0.031***
Urban	0.099	0.095	0.004*	0.103	0.095	0.008***
Urban missing	0.770	0.803	-0.033***	0.770	0.809	-0.039***
Number of Observations	22,871	2,057,568		24,227	1,946,575	
Country: Poland						
Less than primary education	0.089	0.041	0.048***	0.140	0.059	0.081***
Primary education at most	0.702	0.662	0.040***	0.632	0.565	0.067***
Secondary education degree	0.144	0.201	-0.058***	0.179	0.287	-0.108***
Tertiary education degree	0.064	0.095	-0.030***	0.047	0.088	-0.041***
Education missing	0.001	0.001	-0.000	0.002	0.001	0.000
Single	0.007	0.004	0.003***	0.019	0.015	0.004***
Married	0.918	0.972	-0.054***	0.624	0.853	-0.229***
Divorced	0.014	0.008	0.006***	0.060	0.045	0.015***
Widowed	0.061	0.016	0.045***	0.296	0.086	0.210***
Rural	0.435	0.400	0.035***	0.412	0.381	0.031***
Urban	0.565	0.600	-0.035***	0.588	0.619	-0.031***
Number of Observations	22,930	1,117,934		33,006	1,242,028	
Country: South Africa						
Less than primary education	0.428	0.295	0.133***	0.505	0.345	0.160***
Primary education at most	0.402	0.415	-0.013***	0.381	0.412	-0.031***
Secondary education degree	0.123	0.218	-0.095***	0.088	0.196	-0.108***
Tertiary education degree	0.021	0.047	-0.026***	0.010	0.030	-0.020***
Education missing	0.025	0.024	0.001	0.015	0.016	-0.001
Single	0.037	0.032	0.005***	0.114	0.114	-0.001
Married	0.905	0.932	-0.027***	0.602	0.713	-0.111***
Divorced	0.012	0.013	-0.000	0.047	0.046	0.002
Widowed	0.044	0.022	0.022***	0.236	0.126	0.110***
Marital status missing	0.002	0.001	0.001**	0.001	0.001	0.000
Rural	0.404	0.320	0.085***	0.494	0.391	0.103***
Urban	0.595	0.680	-0.085***	0.505	0.609	-0.103***
Number of Observations	24,087	614,063		40,942	809,561	
Country: Turkey						
Less than primary education	0.317	0.161	0.156***	0.618	0.378	0.240***
Primary education at most	0.586	0.637	-0.051***	0.341	0.499	-0.157***
Secondary education degree	0.064	0.125	-0.061***	0.030	0.087	-0.057***
Tertiary education degree	0.033	0.077	-0.044***	0.011	0.036	-0.025***
Single	0.001	0.003	-0.002***	0.000	0.001	-0.000*

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	Men			Women		
	Child with disability	Child w/o disability	Diff.	Child with disability	Child w/o disability	Diff.
Married	0.961	0.983	-0.022***	0.870	0.947	-0.077***
Divorced	0.003	0.002	0.001*	0.007	0.008	-0.000
Widowed	0.035	0.012	0.023***	0.122	0.045	0.077***
Urban missing	1.000	1.000	0.000	1.000	1.000	0.000
Number of Observations	13,313	789,628		12,590	668,851	
Country: Venezuela						
Less than primary education	0.432	0.307	0.125***	0.463	0.305	0.157***
Primary education at most	0.381	0.411	-0.030***	0.348	0.387	-0.039***
Secondary education degree	0.144	0.246	-0.102***	0.148	0.273	-0.125***
Tertiary education degree	0.006	0.009	-0.003***	0.005	0.008	-0.003***
Education missing	0.037	0.026	0.011***	0.036	0.027	0.010***
Single	0.010	0.010	0.000	0.073	0.064	0.009***
Married	0.948	0.960	-0.013***	0.694	0.769	-0.076***
Divorced	0.014	0.014	-0.001	0.100	0.099	0.001
Widowed	0.028	0.015	0.013***	0.132	0.067	0.065***
Marital status missing	0.001	0.000	0.000	0.001	0.001	0.000
Rural	0.288	0.218	0.070***	0.231	0.174	0.057***
Urban	0.712	0.782	-0.070***	0.769	0.826	-0.057***
Number of Observations	11,871	440,931		13,684	454,949	

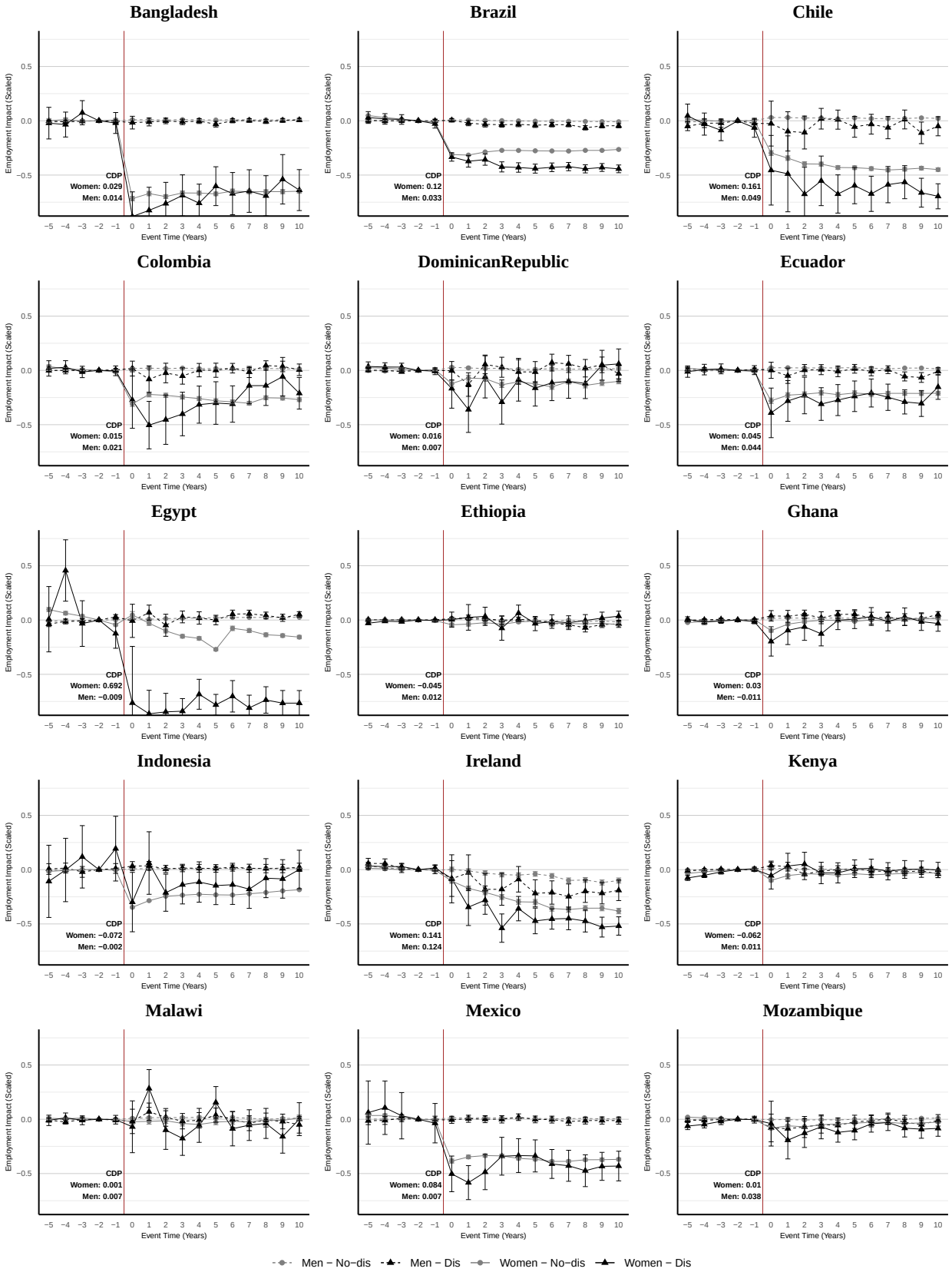

Figure A.1: Child–disability penalties for all countries

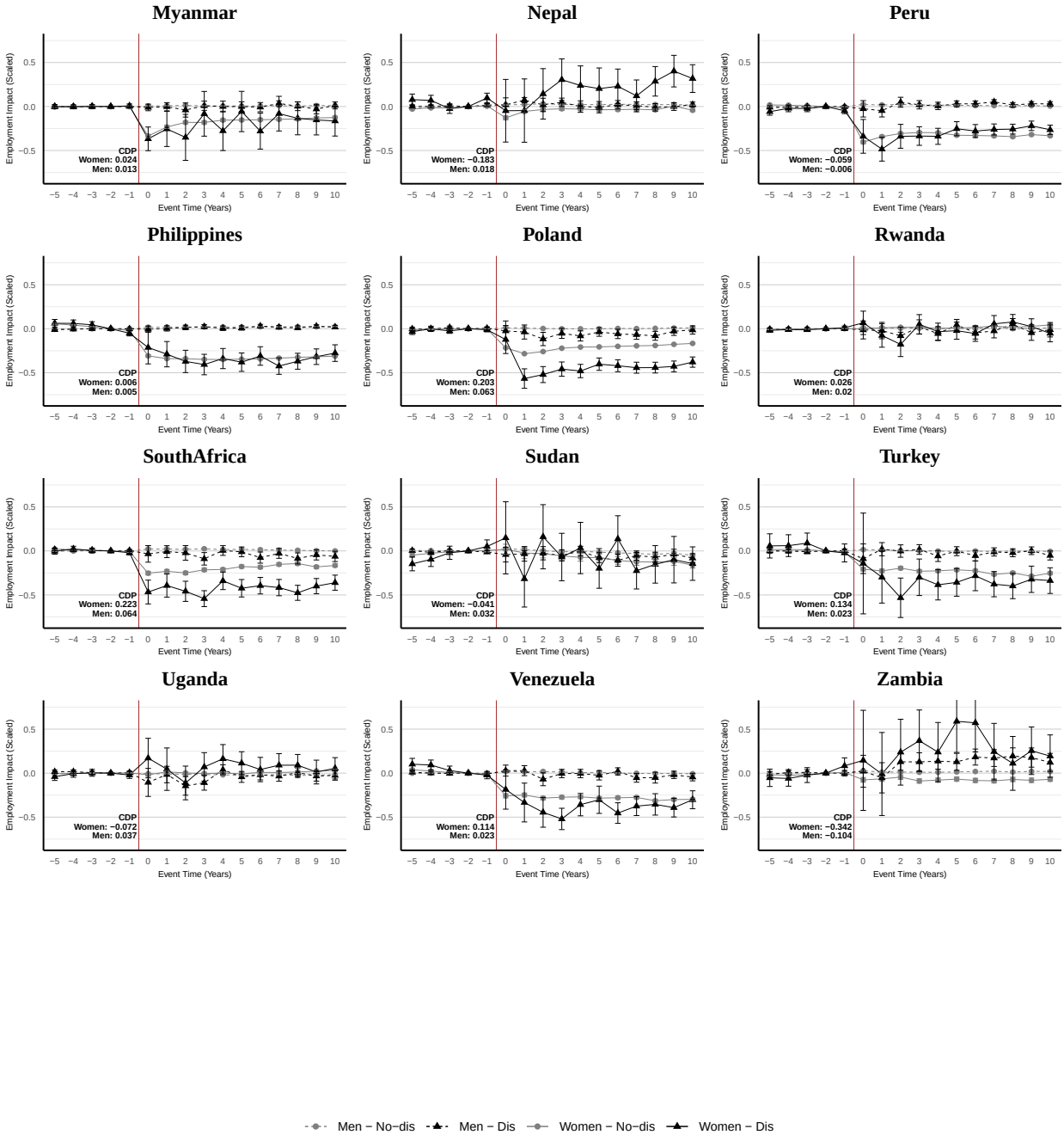

Figure A.1: Child–disability penalties for all countries (continued)

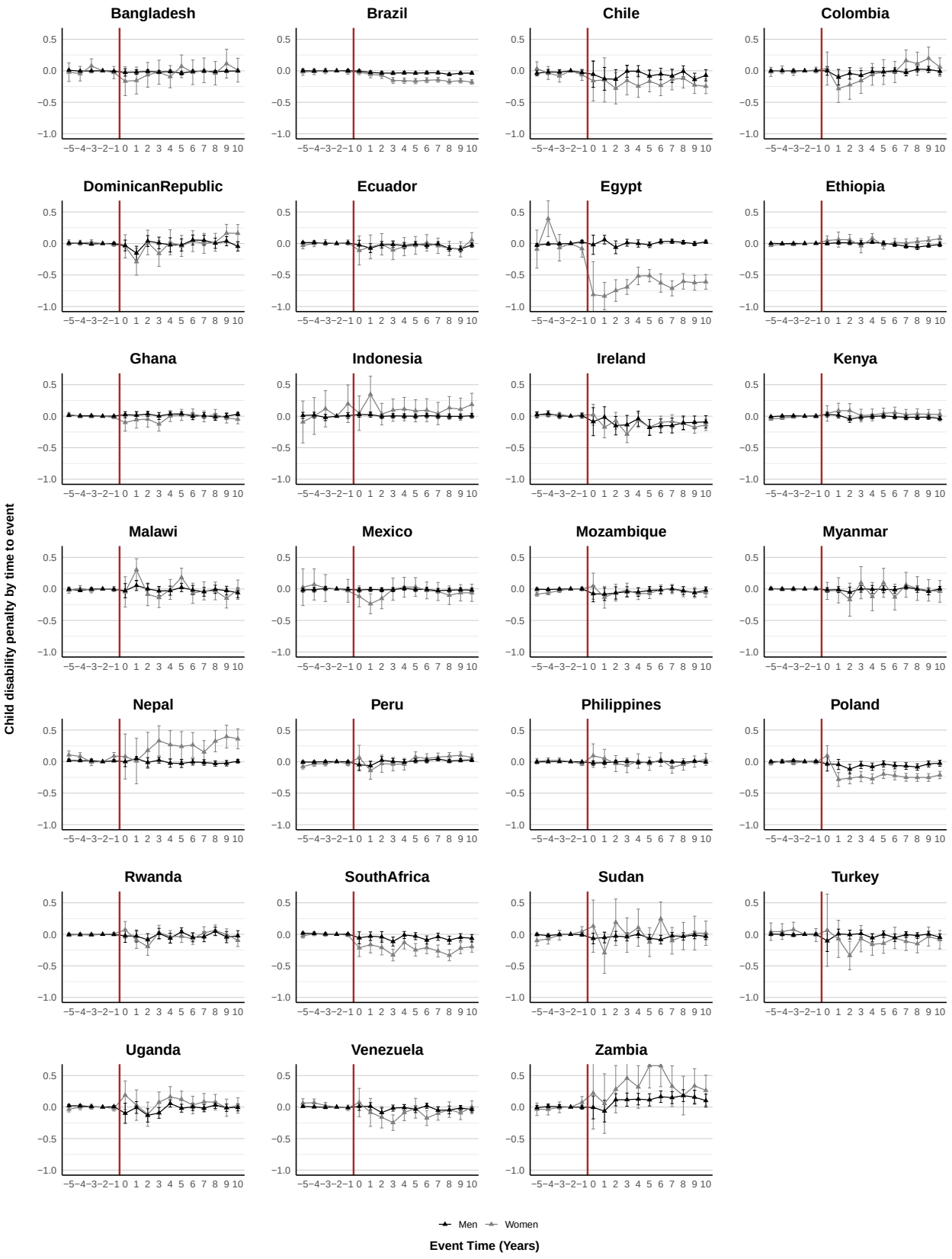

Figure A.2: Child disability penalty by time to event