

What Makes Mothers Decide (Not) to Become Entrepreneurs? Unpacking the Role of Time and Money in Parental Leave Policies

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ABSTRACT Whether mothers become entrepreneurs after childbirth may depend on the generosity of the parental leave that they receive. We apply a resource perspective to disentangle the impact of the policy's time and money components on mothers' likelihood of becoming entrepreneurs. Against the common belief that generous parental leave discourages entrepreneurship, we suggest that offering more time and monetary resources through parental leave can promote mothers' entrepreneurship. In a natural experiment ($n = 181$ mother entrepreneurs from the German Socio-Economic Panel), we find that a German time-contractionary policy reform (2001) reduced the odds of mothers becoming self-employed by 17 per cent. A subsequent money-expansionary reform (2007) was unrelated to mothers' entrepreneurial entry. Our second study, a conjoint experiment ($n = 2176$ decisions nested within 136 women), confirms these findings, showing a significant effect for only the time but not the money component of parental leave on women's likelihood of self-employment. We further explore boundary conditions that underscore nuanced effects of these policies depending on household burdens and socioeconomic context. We conclude that it is the time component of parental leave policies that matters most, while money affects the likelihood of becoming an entrepreneur only among mothers heavily burdened with household responsibilities.

Keywords: entrepreneurial entry decisions, female entrepreneurship, parental leave policy, women entrepreneurship

INTRODUCTION

Although the number of women running their own businesses is steadily increasing worldwide, there is still an apparent gender gap in entrepreneurship (Abbasianchavari

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and Block, 2022; Guzman and Kacperczyk, 2019). This is a concern, since female entrepreneurship has been highlighted as a ‘first-rate vehicle for economic development’ (Pfefferman et al., 2022, p. 250), an ‘essential driver of societal health and wealth’ (Elam et al., 2023, p. 12), and an ‘under-exploited source of economic growth and jobs that should be further developed’ (European Commission, 2018). As a result, initiatives intended to support female entrepreneurship are on the agenda of governments and institutions worldwide (Bullough et al., 2019).

A major challenge for female entrepreneurship is that, in addition to their economic participation, women are substantially involved in caregiving and family-related work (Cantillon and McLean, 2016), which can strain the individual resources (such as time and money) they could devote to entrepreneurial activities. Childbirth, as a transitional life event, significantly reshapes women’s roles, responsibilities, and time commitments, influencing their likelihood to engage in entrepreneurship (Markowska et al., 2023). Some mothers manage their own businesses to fit family routines (Ekinsmyth, 2011), while others may defer entrepreneurship due to the competing demands of caregiving and work (Jayawarna et al., 2021).

It is therefore not surprising that institutional policies seek to address these issues when trying to promote female entrepreneurship. A growing body of research has begun to explore the influence of the institutional macroenvironment in fostering or hindering female entrepreneurship (Estrin and Mickiewicz, 2011; Giménez and Calabrò, 2018; Welter et al., 2014). In particular, there has been an increased focus on the role of family policies, such as parental leave, and their impact on mothers’ entrepreneurship after the birth of a child (Fontenay, 2024; Markowska et al., 2023; Naldi et al., 2021; Thébaud, 2015). Even though these policies are not primarily targeted at entrepreneurship, they intervene deeply in the family sphere and may therefore have a major influence on the decision of mothers (not) to pursue entrepreneurship (Xiao and Wu, 2021).

Interestingly, findings remain inconclusive, showing that generous parental leave policies may prevent (Estrin and Mickiewicz, 2011; Thébaud, 2015), promote (Fontenay, 2024; Gottlieb et al., 2022; Markowska et al., 2023), or be unrelated (Gimenez-Jimenez et al., 2020) to female entrepreneurship. Prevailing labour-economic and necessity-driven narratives portray generous parental leave as a barrier to mothers’ entrepreneurship, suggesting that non-generous leave policies push mothers into self-employment. Hence, this literature views women’s entrepreneurial decisions as rather reactive measures to external pressures (Markowska et al., 2023). While this perspective provides an initial understanding of some entrepreneurial endeavours of women and mothers, it does not cover the full range of entrepreneurship.

We challenge the view that mothers’ entrepreneurship is always merely a ‘plan B’ (Thébaud, 2015, p. 671) or fallback option to improve the integration of child-care and work (Duberley and Carrigan, 2013). Introducing a resource perspective, we argue that mothers’ entrepreneurship is not solely necessity-driven; it also incorporates opportunity-driven, proactive, innovative, and risk-taking activities (Clark et al., 2024; Ramoglou and McMullen, 2024), particularly in developed economies (Elam et al., 2023). Mothers’ entrepreneurship is thus shaped by the availability of resources, particularly time and money. We suggest that parental leave policies, through

time and monetary levers, can affect the availability of these entrepreneurship-critical resources for mothers. From this viewpoint and against the prevailing narrative, we argue that more generous parental leave policies could foster mothers' decisions to pursue entrepreneurship.

To disentangle the effects of time and money on mothers' propensity to become entrepreneurs, we conduct two empirical studies. The first exploits a natural experiment, using data from the German Socio-Economic Panel (GSOEP), and investigates the impact of two major parental leave reforms (in 2001 and 2007). The second study utilizes a metric conjoint experiment (often referred to as policy-capturing) where mothers or soon-to-be mothers rated the likelihood of becoming self-employed along various hypothetical scenarios that manipulated parental leave policy changes. Here, we further explore how social support and socioeconomic background influence women's responses to parental leave policy changes and thus further contextualize our main assumptions.

By examining how parental leave policies shape mothers' entrepreneurial entry through their impact on time and monetary resource availability, our study bridges three research fields: (1) institutional effects on entrepreneurship, (2) the resource perspective, and (3) female entrepreneurship, contributing to each as follows. Contributing to research on (1) institutional effects on entrepreneurship (Giménez and Calabrò, 2018; Gimenez-Jimenez et al., 2020), we highlight how policies not specifically designed to foster entrepreneurship, such as parental leave policies (e.g., Markowska et al., 2023), shape women's entrepreneurial entry decisions. We suggest that these policies affect mothers' entrepreneurship by altering the life circumstances under which they evaluate entrepreneurial opportunities, bridging institutional and gendered perspectives on entrepreneurship. By disentangling the roles of time and money – the key levers of parental leave generosity – we extend the prevailing generosity view (Kalb, 2018; Schönberg and Ludsteck, 2014), offering a more nuanced understanding of how macroenvironmental factors affect entrepreneurship.

Contributing to the (2) resource perspective, our study advances understanding of how institutional policies shape the availability and relevance of critical entrepreneurial resources. While entrepreneurship research often operates under the assumption that more resources are always better, mixed prior findings linking parental leave policies to entrepreneurship suggest that the reality is more complex. By disentangling the distinct resources provided by parental leave – time and money – we highlight the nuanced mechanisms through which such policies create or constrain resources, thereby either facilitating or hindering mothers' entrepreneurial entry. Thus, by connecting resource mechanisms with institutional policies, we extend resource-based arguments to account for the design of policy interventions.

Contributing to the field of (3) female entrepreneurship,^[1] we address the gendered dynamics of entrepreneurial entry by highlighting how institutional policies specifically affect mothers. We move beyond the dominant narrative that portrays mothers' entrepreneurship as a 'functional necessity in managing the (...) demands of motherhood' (Foley et al., 2018, p. 313). Instead, we understand mothers' entrepreneurship as a proactive, innovative, and risky endeavour that requires resources, particularly time and money. Additionally, we explore the boundary conditions under which time versus monetary resources provided by parental leave are more or less influential,

depending on individual and socioeconomic factors. This approach reveals the heterogeneity within female entrepreneurship and challenges one-size-fits-all policy assumptions. By integrating institutional and resource perspectives, our study provides a more comprehensive understanding of how women's entrepreneurship decisions are shaped by policy contexts.

THEORY

Drivers and Barriers for Women (and Mothers) to Starting a New Business

Encouraging women and mothers to become entrepreneurs is on the agenda of scholars, practitioners, and policymakers worldwide (Chiplunkar and Goldberg, 2024; De Bruin et al., 2006; Looze and Desai, 2020). However, the reasons why women decide (not) to start new businesses are complex – and inherently gendered (Jayawarna et al., 2021). Research has identified numerous drivers and barriers to female entrepreneurship (Brush et al., 2019; Jennings and Brush, 2013; Sullivan and Meek, 2012), including individual motivations, situational characteristics, and institutional factors.

Regarding *individual motivations*, gender-comparative studies indicate that women are less driven by financial gain, power, autonomy, and self-actualization through innovation than men are (e.g., Buttner and Moore, 1997; Carter et al., 2003; Manolova et al., 2008). Instead, many women entrepreneurs are more motivated by family-related factors and view entrepreneurship as a viable alternative to wage employment because it offers greater flexibility and control over their work, enabling them to spend more time with family and achieve a better work–life balance (e.g., Bari et al., 2021; Brush et al., 2009; DeMartino and Barbato, 2003; Hughes, 2003).

In addition, *situational characteristics* can motivate or discourage women from starting businesses. Women may view entrepreneurship as a way to escape challenges faced in traditional employment, such as gender discrimination or glass ceiling effects (Justo et al., 2015; Yang et al., 2024). Moreover, women tend to face poorer access to entrepreneurial resources, such as networks and financing, hindering female entrepreneurship (e.g., Brush et al., 2019; Coleman et al., 2019). These situational barriers intersect with *institutional factors*, highlighting the role of the macroenvironment in shaping entrepreneurial opportunities and constraints for women (Estrin and Mickiewicz, 2011; Giménez and Calabrò, 2018; Naldi et al., 2021; Welter et al., 2014). Institutions – especially through their policy-making power – can shape the climate for entrepreneurship and thereby affect women's entrepreneurial decisions (Brush et al., 2009; Markowska et al., 2023). Family-friendly policies, such as parental leave schemes, have emerged as particularly critical (Markowska et al., 2023; Thébaud, 2015). Given that women's entrepreneurial decisions are often closely linked to family-related considerations, the design and generosity of parental leave policies may both mitigate situational barriers such as time scarcity and reshape women's perceptions of entrepreneurship as a viable alternative to wage employment. While research in this field is burgeoning, it is still far from providing a clear picture of whether parental leave policies promote or even inhibit

mothers' entrepreneurial entry (e.g., Estrin and Mickiewicz, 2011; Gottlieb et al., 2022) – a question we seek to address in this study.

Parental Leave Policies and mothers' Entrepreneurship: Prior Insights and Perspectives

Parental leave schemes are a core element of family policy in most OECD countries, aimed at supporting women's labour market participation through job protection and financial security after childbirth (Thébaud, 2016). Originally, these policies were designed to support mothers' return to their previous *employed* jobs, which is typically the standard route. However, we know much less about how parental leave policies affect the more proactive decision to enter entrepreneurship – an alternative route that involves different considerations, such as identifying new opportunities and managing the risks of self-employment. Evidence on the link between parental leave policies and women's entrepreneurship is scarce and contradictory. In a cross-country comparison, Estrin and Mickiewicz (2011) find that generous maternity leave is associated with *lower* rates of female entrepreneurship. Gottlieb et al. (2022) find that a Canadian policy change towards a more generous parental leave led to a 1.9 percentage point *increase* in entrepreneurship among mothers 5 years later. Thébaud (2015) and Gimenez-Jimenez et al. (2020) do not find significant effects of parental leave policies on women's entrepreneurship. Thus, the evidence remains inconclusive as to whether more (or less) generous parental leave policies can encourage or discourage mothers from starting new ventures.

The dominant narrative in this research area, grounded in labour-economic and necessity-oriented arguments, views generous parental leave policies as a barrier, and non-generous policies as a driver of entrepreneurship (Estrin and Mickiewicz, 2011; Thébaud, 2015). From the labour-economic perspective, women weigh the foregone income from wage employment against the costs of childcare and valuable time spent with their child (Cascio et al., 2015; Geyer et al., 2015; Raute, 2019). Generous parental leave increases the income element of the trade-off by providing women with additional non-labour income, reducing the incentive to generate income through wage employment *or* self-employment. Thus, this perspective emphasizes how parental leave may affect mothers' general decision to stay at home to care for their child vis-à-vis generating income. Accordingly, highly generous parental leave should diminish the incentives for mothers both to return to their previous employed jobs *and* to found their own business after childbirth. Research supporting this argument shows that larger cash benefits reduce mothers' work commitment and increase their preference to care for their families (Gangl and Ziefle, 2015), leading to significant delays in their return to employed work (Lalive et al., 2014).

While the labour-economic argument focuses on mothers' decision whether to return to work at all, the necessity-oriented perspective emphasizes their decision to enter entrepreneurship vis-à-vis returning to traditional wage employment. According to this perspective, generous parental leave policies reduce the pressure women (supposedly) experience to return to wage employment quickly, diminishing the need for entrepreneurship as an 'escape route'. After childbirth, women often face tension

and conflict in balancing work and family identities in their employed jobs (Ladge et al., 2012). Becoming a mother often shifts priorities, increases the importance of the family domain (Evertsson, 2013), and requires mothers to adjust and align their new routines with existing workplace rhythms (Abendroth, 2022; Rouse et al., 2021). Following this perspective, the gendered challenges faced by mothers make it more difficult to continue their previous wage employment and thus push them towards entrepreneurship. Mothers' entrepreneurship is thus portrayed as an escape route from wage employment because it may be home based, offer schedule flexibility, and satisfy their needs to care for their children – all of which helps to reduce work–family conflict and improve work–life balance (Anxo and Ericson, 2015; Cai et al., 2019; Noseleit, 2014; Richomme-Huet et al., 2013). Non-generous parental leave policies may reinforce this effect by pressuring mothers to return more quickly to the (supposedly unattractive) path of wage work or to seek the escape route of entrepreneurship (Thébaud, 2015).

However, recent research has begun to challenge these views. Markowska et al. (2023), in their multi-case study, argue that prevailing perspectives on mothers' entrepreneurship fail to explain why we see an increase in mother entrepreneurs in economies with very generous parental leave policies, such as Sweden. The authors argue that the time component of parental leave not only is about prioritizing the family domain (the established escape route argument), but also could stimulate mothers to enter entrepreneurship by providing more 'time to think (and rethink) about oneself, time to identify new business opportunities, and time to "kick-start" a business' (Markowska et al., 2023, p. 1170). We draw on these advances to develop a novel resource-based perspective on how parental leave policies affect mothers' entrepreneurial entry.

(Re-)Considering the Impact of Parental Leave Policies from a Resource Perspective

We suggest that the seemingly scattered and contradictory findings on parental leave's effects on mothers' entrepreneurship may stem from an undifferentiated perspective on the specific design elements of parental leave policies that may encourage or discourage mothers to become entrepreneurs. Much prior research merely contrasts expansionary and contractionary policy changes that respectively increase or decrease the generosity of parental leave. However, parental leave generosity is more complex, since it may refer to generosity in *money* (i.e., larger or smaller amounts of monetary benefits paid during parental leave) or generosity in *time* (i.e., prolonged or shortened periods of parental leave time).

This distinction between money and time was first raised by Asai (2015) and Lalive et al. (2014) in studying the effects of parental leave on women's wage employment. Yet, we know too little about how these two policy levers affect mothers' *entrepreneurship*. Differentiating these levers would also better reflect the fact that not all female entrepreneurs are necessity-driven, but many are also pull-oriented and opportunity-driven (Jafari-Sadeghi, 2020). Notably, of course, a parental leave policy change will not affect the entrepreneurial entry of *all* women. However, it should enhance the

likelihood of making a choice towards entrepreneurial actions. This aligns with research showing that external barriers often delay or prevent individuals from pursuing entrepreneurial plans (Van Gelderen et al., 2015) and that additional resources (as provided during parental leave) could help turn such initial thoughts into action (Meoli et al., 2020).

To advance the generosity view and develop hypotheses on time- versus money-related policies, we draw on a resource perspective. The importance of resources for entrepreneurial thinking and action is widely recognized (e.g., Dolmans et al., 2014; Rosso, 2014). Two crucial resources for the entrepreneurial process are *financial resources* and *time resources* (Acar et al., 2019; Hlavacek and Thompson, 1973; Rosso, 2014), which correspond closely to the two central levers of parental leave. By varying the generosity of parental leave, policymakers can determine the accessibility of these two critical resources to mothers during a pivotal time in their lives. Increasing the duration (time component) of parental leave provides mothers with more time resources to invest in entrepreneurial endeavours, whereas reducing duration limits them. Increasing the monetary amount (money component) of parental leave provides mothers with more financial security as a resource, whereas reducing the amount constrains financial resources.

From this resource perspective, increasing the generosity of parental leave (as an indirect instrument that affects the availability of time and monetary resources) should facilitate mothers' entrepreneurial entry, in contrast to the prevailing narrative that portrays generous parental leave as a barrier to mothers' entrepreneurship. Our more supportive view is echoed by voices describing the generosity of parental leave as 'a trigger and potential enabler of the entrepreneurship for women' (Markowska et al., 2023, p. 1182). Since resources are generally viewed as valuable for entrepreneurship (Kellermanns et al., 2016), it is easy to think that more is always better. However, research on the links between resource availability and innovation also yields controversial or even paradoxical results (Dolmans et al., 2014; Rosso, 2014). Thus, simply providing more resources might not be the best solution. Instead, understanding the distinct effects of time and money on mothers' entrepreneurship is essential. Our study seeks to disentangle the intertwining of these two components to determine to what extent each parental leave policy lever affects mothers' decisions to pursue entrepreneurial ventures. Disentangling the time versus monetary aspects of parental leave will allow much-needed insights into the specific resources mothers need to launch their own businesses during a transitional time in their lives.

Linking the Time Component of Parental Leave with mothers' Entrepreneurial Entry

The availability of time as a critical resource for entrepreneurship (Gutierrez et al., 2023) is the first lever that policymakers can use through parental leave policies. First, longer periods of parental leave – that is, the availability of time resources – should facilitate the proactive and innovative behaviour necessary to start a business. Proactive behaviour is 'self-starting, future focused and change oriented' (Parker et al., 2019, p. 222), includes deliberately (re-)shaping one's career path

(Seibert et al., 2001), and seeking out new work situations (Saks and Ashforth, 1996). Becoming a mother is a life-changing event (Stewart, 1982) that is considered to be one of the most sensitive periods for career decisions, identity reconstruction, and identity transition (Gross-Spector and Cinamon, 2018; Ladge et al., 2012). This transition can encourage mothers to rethink their career options, explore their values and priorities, and consider entrepreneurship as an alternative to wage employment (Caballero, 2017; Cai et al., 2019; Noseleit, 2014). However, rethinking and rebuilding a career is a complex journey that requires time (Jiang et al., 2019). The proactive decision to pursue a new career path – especially entrepreneurship – is not just about gathering information but also a complex process of self-discovery and sensemaking of one's life and career (Flum and Blustein, 2000). This exploration demands a significant investment of time to self-reflect, question personal preferences, and experiment with career options (Ibarra, 2003; Zikic and Hall, 2009).

Second, longer parental leave should facilitate the innovative behaviour needed to start a new business. Innovative behaviour is characterized by deliberately generating and implementing new and useful ideas (Kang et al., 2016; Scott and Bruce, 1994). Just as individuals need time to explore new career options, they need time to generate ideas, reflect on them, and translate them into new business models (Wu et al., 2014). Furthermore, self-efficacy and motivation are crucial for innovative behaviour but need time to evolve (Ng and Lucianetti, 2016; Tierney and Farmer, 2011). In contrast, time pressure can hamper innovation and experimentation and make individuals more likely to stick to routine actions (Amabile et al., 1996; Noefer et al., 2009; Shalley and Gilson, 2004).

Taken together, although time alone will not turn people into entrepreneurs, it serves as 'one of the entrepreneur's most valuable resources' (McCarthy et al., 1991, p. 7). We therefore suggest that extending the time component of parental leave gives mothers a protected 'time off' that they can use to explore their careers and new business ideas. By contrast, shortening the duration of parental leave is likely to bring women back into wage employment sooner (Lalivie et al., 2014), shortening the important transitional phase after childbirth and restricting mothers' capacities to detect and evaluate new business opportunities. Thus, we hypothesize that:

H1: Time-expansionary changes in parental leave will increase mothers' likelihood of becoming an entrepreneur, whereas time-contractionary changes in parental leave will decrease their likelihood of becoming an entrepreneur.

Linking the Money Component of Parental Leave with mothers' Entrepreneurial Entry

The availability of money as a critical entrepreneurship-relevant resource (Perry-Rivers, 2016) is the second lever that policymakers can pull through parental leave policies. We suggest that monetarily generous parental leave policies benefit mothers' entrepreneurship because monetary resources facilitate risk-taking behaviour that is especially necessary to start a new business.

Starting a business is a risky endeavour that not everyone is willing to undertake (Block and Landgraf, 2016; Rapp et al., 2018). Leaving behind the security of wage employment can deter entrepreneurial entry, especially for individuals with limited financial resources (Amit et al., 1995; Raffiee and Feng, 2014). While new businesses do not require substantially high amounts of income and wealth (Kim et al., 2006), a steady income stream and a certain amount of financial security can mitigate the risk aversion that often deters individuals from pursuing entrepreneurship (Bilan and Apostoaie, 2023; Petrova, 2012). Becoming an entrepreneur during parental leave may offer a unique opportunity for mothers to mitigate this risk, akin to the concept of hybrid entrepreneurship, where individuals start a new business alongside the security of their regular jobs (Raffiee and Feng, 2014).

Generous social security systems, including generous parental leave policies, may be crucial in encouraging entrepreneurship by creating an important safety net against income loss (Bilan and Apostoaie, 2023; Hessels et al., 2007). By offering predictable financial security, these systems reduce the opportunity cost of starting a business, lower the barriers to entrepreneurial entry, and ultimately encourage individuals to engage in riskier activities (Audretsch et al., 2022; Bilan and Apostoaie, 2023). Furthermore, stable income from parental leave can reduce the pressure on the new business to become profitable immediately (Block and Landgraf, 2016).

Taken together, altering the monetary component of parental leave affects the availability of financial security as a second crucial entrepreneurial resource. We suggest that extending the monetary component of parental leave creates a safety net of financial security and predictability that allows mothers the flexibility to focus on building their businesses without the looming threat of financial strain. The stable income provided by generous parental leave may provide the necessary impetus for mothers to venture into entrepreneurship. By contrast, reducing the monetary component of parental leave may discourage mothers from taking this risk and, instead, increase their priority to return to the ‘safe’ option of wage employment as soon as possible. Thus, we hypothesize that:

H2: Money-expansionary changes in parental leave will increase mothers’ likelihood of becoming an entrepreneur, whereas money-contractionary changes in parental leave will decrease their likelihood of becoming an entrepreneur.

OUTLINE OF OUR METHODOLOGY

To test our hypotheses, we combine a natural experiment (Study 1) using the representative longitudinal GSOEP with a metric conjoint experiment (Study 2). We can thus complement the strengths of the two empirical designs while reducing their respective limitations. Study 1 allows us to measure mothers’ actual entrepreneurial entry in response to two parental leave policy changes, one that mainly altered the time component and the other that mainly altered the monetary component of parental leave. Natural experiments such as these offer strong ecological validity (Sieweke and Santoni, 2020),

avoid participant awareness bias (Bing et al., 2011), and observe actual behavioural changes. However, they usually have less internal validity than actively manipulated experiments (Stevenson et al., 2020).

To address this limitation, we conduct a conjoint experiment in Study 2. Conjoint experiments and comparable approaches, such as policy-capturing (Aiman-Smith et al., 2002), are widely used to gain insight into individuals' decision-making. This method manipulates several decision-making attributes that potentially influence the observed decision across a range of scenarios (decision profiles) while holding certain contextual factors constant (Lohrke et al., 2010; Schüler et al., 2024). In Study 2, we tasked mothers and women intending to become mothers soon with rating the likelihood of becoming self-employed across various scenarios reflecting parental leave policy changes. This approach helps to further mitigate endogeneity threats (Anderson et al., 2022) and to assess the distinctive effects of varying generosity attributes on the decision to become an entrepreneur.

STUDY 1

Research Context: Parental Leave Policy Reforms in Germany

Study 1 examines the effects of two German parental leave policy reforms, in 2001 and 2007, on mothers' propensity to become entrepreneurs. Germany provides an appropriate country case for our study for two reasons. First, historically, German mothers have shown strong labour market behavioural responses to changes in family policies (Ziefle and Gangl, 2014). Second, the 2001 and 2007 policy reforms were substantial enough to induce behavioural responses (e.g., Gangl and Ziefle, 2015; Mari and Cutuli, 2021; Merz, 2004). These reforms were enacted against the backdrop of Germany's traditionally conservative family policies that historically promoted a breadwinner household model (Chirkova, 2019). It was common for fathers to be employed full-time employed, while mothers were encouraged to stay at home for extended periods after childbirth, resulting in long labour market interruptions for them (Schönberg and Ludsteck, 2014). This was reinforced by combining a joint income tax system (Gangl and Ziefle, 2015; Steiner and Wrohlich, 2004) and a generous job-protected parental leave time of 3 years.

The two reforms represent an important turning point. Both reforms included several changes; however, the 2001 reform placed significant emphasis on the time component, whereas the 2007 reform focused on the money component. The 2001 reform introduced the option to choose between the existing arrangement of receiving €300 per month for 24 months or a new arrangement of €450 per month for 12 months after the birth of a child. According to the OECD, the 2001 reform had little effect on monetary generosity but, rather, reduced generosity in time, incentivizing the shorter 12-month period of paid parental leave (OECD, 2017a; Thévenon and Solaz, 2013). While the 3 years of job-protected parental leave remained unchanged, it was the government's goal to encourage an earlier return to work by introducing a shorter period of paid parental leave (Mari and Cutuli, 2021).

The 2007 reform replaced these arrangements with a 12-month net income-based parental allowance. Parents could now receive up to 67 per cent of their average net income in the 12 months before a child's birth for up to 12 months after birth, with a minimum payment of €300 and a maximum of €1800 per month (OECD, 2017a, 2017b; Ziefle and Gangl, 2014). The aim of this reform was to address one of the lowest fertility rates in Western Europe by ensuring that mothers earning higher wages were entitled to significantly higher cash benefits (Bergemann and Riphahn, 2023; Frodermann et al., 2023; Kluve and Schmitz, 2018). Therefore, prior research has summarized that the 2007 reform 'substantially increased financial incentives' (Raute, 2019, p. 203) and was 'more generous in terms of benefit amounts' (Chirkova, 2019, p. 31).

Thus, the 2001 reform mainly changed the time component by incentivizing shorter parental leave, and the 2007 reform mainly changed the monetary component by significantly increasing cash benefits. Overall, the stated goal of these policy changes was to move away from the traditional division of labour and household responsibilities towards a support system for dual-earner families comparable to those in Nordic countries (Geyer et al., 2015; Mari and Cutuli, 2021; Spiess and Wrohlich, 2008; Ziefle and Gangl, 2014). Table I briefly summarizes the main changes in both reforms, while Table A.I in the Appendix provides additional information on the reforms.

Data Set

We use data from the GSOEP, one of the largest and longest-running multidisciplinary and longitudinal household surveys worldwide (Goebel et al., 2019). The German Institute for Economic Research (*Deutsches Institut für Wirtschaftsforschung*) conducts approximately 30,000 annual survey interviews in the German adult population. The survey spans roughly 15,000

Table I. Parental leave entitlements in Germany, 2001 & 2007 policy reforms

Component	Variable	Reforms		
		Before 2001	2001	2007
Time	Total job-protected parental leave time in months	36 months		
	Share of <i>paid</i> parental leave time ^a	24 months	12 or 24 months	12 months
Money	Parental allowance per month of <i>paid</i> parental leave time	€300 ^a	12 months: €450 ^b 24 months: €300 ^b	Up to 67% of net income with a minimum of €300 and a maximum of €1800 ^c

Note: See Neugart and Ohlsson (2013), Thévenon and Solaz (2013), Ziefle and Gangl (2014), Gangl and Ziefle (2015), and OECD (2017b) for details.

^aParental allowance is paid from a child's birth for the specified period of time, and it is tax-free.

^bThere were income limits in place: The allowance was only paid for the first 6 months after birth if the family's net annual income was <€30,000. From the seventh month onward, the limit was €16,500, and if the income was higher, the 12-month option deducted 7.2 per cent of the excess income, while the 24-month option deducted 5.2 per cent. Parental allowance was paid in addition to other social benefits.

^cParental allowance was paid if the family's taxable income does not exceed €500,000 per year. The minimum amount of €300 parental allowance is not offset against other social benefits.

private households, providing a nationally representative household and panel data set. It includes a rich set of variables, such as demographics, household composition, education, fertility, employment, health and satisfaction measures, and detailed occupational biographies (Goebel et al., 2019; Ziefle and Gangl, 2014). The data set was chosen because it provides a longitudinal analysis at the individual level, enabling us to estimate how parental leave policy changes affect mothers' propensity for self-employment at the respondent level, accounting for both time-variant and time-invariant person-related information. We set out the details of our analysis surrounding the 2001 policy in this section and turn to the 2007 policy in more detail in Section “Effects of the Money-Expansionary (2007) Policy Reform”.

To assess the impact of the 2001 policy reform, we sampled mothers who gave birth in the years 1996–2005, surrounding the reform, and who had been actively working (reporting personal income information) prior to their first childbirth. The choice of this time frame was based on Gangl and Ziefle (2009), who investigated behavioural changes in labour market participation after motherhood for a 5-year time frame before and after giving birth. In our panel data set of 5740 mothers, we observed a total of 8342 births: 4479 before 1 January, 2001, and 3863 after. We identified mother entrepreneurs in the GSOEP as women who moved into self-employment surrounding childbirth, wherein the term ‘surrounding childbirth’ spans from pregnancy ($t-1$) until 6 years after childbirth ($t+6$), for the first, second, or third child.^[2] Following Ziefle and Gangl (2014), we use a cut-off criterion of 6 years (when children typically enter primary school in Germany). In each GSOEP wave, respondents retrospectively reported whether they changed their professional occupation in the past year and indicated the type of occupational change, with ‘becoming self-employed’ as one of the possible answers. We used the GSOEP waves from 1996 to 2011, since this period includes, for each mother who gave birth in the years 1996 to 2005, the 6 years' time to become an entrepreneur. The data included 181 mother entrepreneurs according to our definition.^[3] Of these, 35 per cent indicated being a freelancer, 47 per cent worked without co-workers, 13 per cent had fewer than nine co-workers, 2 per cent had more than nine co-workers, and 3 per cent helped in the family business.

Table II summarizes the means and standard deviations for several personal, household, and labour market characteristics for the mother entrepreneurs and all other mothers. There were no significant differences between the two groups regarding several observable characteristics, such as age at motherhood, marital status, personal income, home ownership, origin (East or West Germany), and weekly work hours. However, compared to the sample of other mothers, mother entrepreneurs were more highly educated, had a higher monthly household income, and worked more often in the evening. They also had, on average, more children, spent more time with them, and were more likely to work from home than the other mothers.

Estimating Mothers' Probability of Becoming Entrepreneurs

We used a regression discontinuity (RD) approach to identify the causal effect of a parental leave policy change on mothers' probability of becoming entrepreneurs. The RD design is a useful method to assess the effectiveness of a treatment in the situation of a clear cut-off between the treatment and control group (Cappelleri and Trochim, 2015; Imbens and Lemieux, 2008). In our study, the cut-off occurs between mothers who fell under the

Table II. Study 1: Descriptive statistics of mothers giving birth surrounding the 2001 reform

	<i>All other mothers</i>		<i>Mother entrepreneurs</i>		<i>Two-tailed t-test</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
Number of children	2.03	0.86	2.25	0.74	0.00***
Years of education	12.45	2.58	13.45	2.89	0.00***
Net monthly household income (€)	3337.31	2015.95	3791.04	2478.07	0.01***
Work from home (%)	5.30	0.22	22.73	0.42	0.00***
Daily hours of child care	4.18	4.68	5.36	5.71	0.00***
Work in the evening (%) ^a	33.75	0.47	56.71	0.49	0.00***
Age mother (years)	27.68	4.92	27.39	5.06	0.46
Marital status (% married)	54.72	0.50	60.44	0.49	0.13
Net monthly personal income (€)	1140.39	818.92	1219.96	1288.38	0.41
Home ownership (%)	43.39	0.49	44.58	0.50	0.75
Weekly hours of work	28.80	13.19	29.98	15.56	0.32
West Germany (%)	80.42	0.40	79.03	0.41	0.65
Subjective life satisfaction (10pt scale)	7.34	1.61	7.36	1.53	0.87
Subjective work satisfaction (10pt scale)	7.25	2.01	7.23	1.96	0.83
Subjective family life satisfaction (10pt scale) ^a	7.94	1.86	7.74	1.87	0.21
Age of mother when becoming entrepreneur			33.77	5.44	
Age of the youngest child when becoming entrepreneur			2.67	1.99	
Has employees in business (%)			17.92	0.38	
Number of mothers	5559		181		

Note: Descriptive statistics for the 5559 mothers in our sample who are not entrepreneurs and the 181 mothers who are mother entrepreneurs. *p*-values of two-tailed *t*-tests for differences in means between the two groups.

^aThese measures are observable across all mothers for at least 80 per cent of the sample.

****p* < 0.01.

parental leave reform prior to 1 January 2001 (or 2007) and mothers who fell under the new parental leave reform after 1 January 2001 (or 2007). We estimated the size of the discontinuity by running a logit model. These models are commonly used for binary outcomes and predict the likelihood of yes/no events, in our case the likelihood of becoming self-employed (our identification strategy is further detailed in the [Online Appendix](#)).

We thus estimated:

$$ME_{it} = \alpha + \beta_1 x_{it} + \beta_2 D_t + \beta_3 x_{it} D_t + \beta_4 t + Z'_{it} + \mu_i \quad (1)$$

where ME_{it} (for mother entrepreneur) is the dichotomous outcome of the treatment for an individual mother i at time t and takes the value 1 when the mother becomes an entrepreneur at time t . x_{it} is the assignment variable, which captures the year in which an individual woman gives birth. β_2 is the main coefficient of interest, which estimates the effect of the

treatment D_t , where $D_t = 1$ if the child was born on 1 January 2001 (or 2007) or thereafter, in which case the mother is considered treated, since she then fell under the new parental leave policy. If the year of birth is before 2001 (or 2007), $D_t = 0$, in which case the mother belongs to the control group. $x_{it}D_t$ is the interaction term between the assignment variable and the treatment effect. Since both the outcome ME_{it} and our treatment effect D_t are conditional on childbirth, x_{it} , this interaction term accounts for a possible false discontinuity by measuring the effect of our treatment D_t while controlling for x_{it} . Therefore, the coefficient β_3 should *not* be significantly different from zero (Lesik, 2006). t is a time trend variable that captures the annual change in the probability of becoming an entrepreneur, holding constant the effects of the other variables. Finally, $\mathcal{Z}'_{it}\gamma$ is a set of control variables, including a mother's total number of children, age when becoming a mother, level of education, and household income. We also add the yearly average percentage of female entrepreneurs in Germany to control for the general trend in entrepreneurship. μ captures any unobserved factors that affect a mother's choice for self-employment.

Results

Effects of the time-contractory (2001) reform. Figure 1 illustrates the effects of the 2001 reform. Using a logit transformation for our dichotomous outcome variable, we plot the predicted probabilities of becoming a mother entrepreneur against childbirth in a given

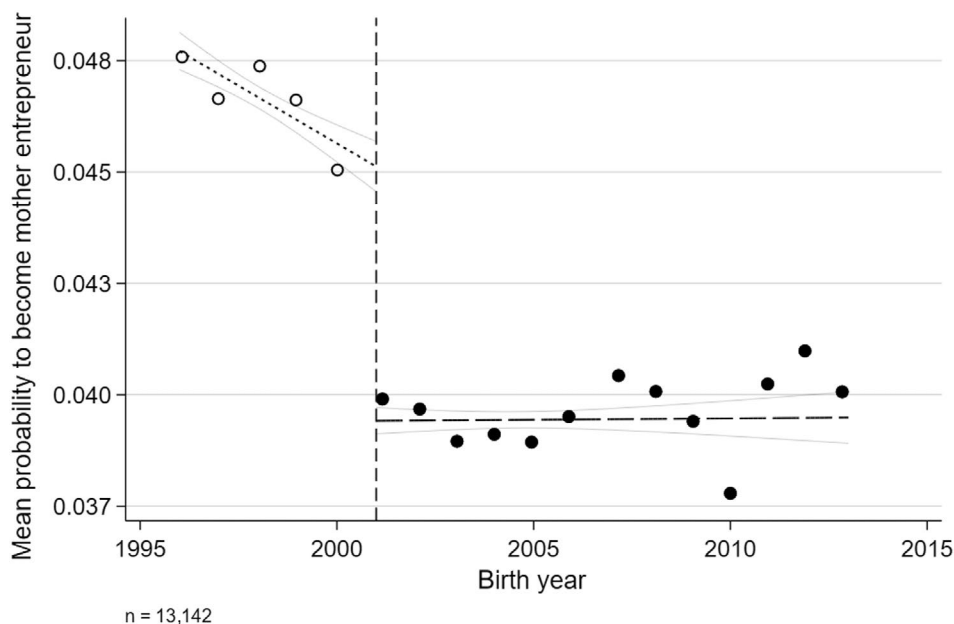


Figure 1. Study 1: Regression discontinuity graph

Note: Plot of the predicted probability of becoming a mother entrepreneur conditional on the assignment variable, childbirth, in a given year. The dots represent the mean probability of becoming self-employed, which may differ in each childbirth year. The vertical distance between the top and the bottom of the mean predicted probability in the year 2001 is equivalent to a decrease in the probability of becoming self-employed of 0.62 per cent, the treatment effect. The solid lines show the associated 95 per cent confidence intervals.

year, the assignment variable (Lesik, 2006). The dots represent the mean probability of becoming self-employed in each childbirth year. The solid lines show the associated 95 per cent confidence intervals. Figure 1 shows a negative jump in mothers' probability of becoming an entrepreneur at the cut-off year 2001.

Table III shows the estimation results of the logistic regression. Both the specification without control variables (model 1) and the specification with control variables (model 2) show a negative and significant assignment variable (childbirth itself negatively affects the probability of becoming self-employed) and a negative treatment effect significant at the 5 per cent level. After the reduction in parental leave generosity, the propensity for

Table III. Study 1: Logistic regression analysis for the time-contractuary (2001) reform

	<i>Becoming a mother entrepreneur (2001)</i>	
	<i>Model 1</i>	<i>Model 2</i>
Childbirth (x_{it})	-1.460** (0.716)	-1.317* (0.724)
Treatment (D_t)	-0.180** (0.0881)	-0.185** (0.0933)
Childbirth*treatment ($x_{it}D_t$)	1.064 (0.752)	0.756 (0.759)
Time trend (t)	0.0465*** (0.00975)	-0.00132 (0.0139)
Female self-employment rate		0.601*** (0.136)
Number of children		0.443*** (0.0492)
Age mother		-0.00293 (0.0107)
Years of education		0.150*** (0.0164)
Household net income (ln)		-0.0184 (0.103)
Marital status (1 = married)		0.430*** (0.105)
Intercept	-3.415*** (0.120)	-10.75*** (1.381)
Person/year observations	13,142	13,142
Mc Fadden pseudo R^2	0.0083	0.0553

Note: Results for the estimation of Equation (1) using 'becoming a mother entrepreneur' as outcome variable. Model 1 shows the results without control variables and model 2 includes all control variables. Robust standard errors in parentheses. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

mothers to become self-employed decreased. The logit coefficient of -0.1851 in model 2 translates into a decrease in the odds of becoming self-employed under the new parental leave policy of nearly 17 per cent ($e^{-0.1851} = 0.8310$). In economic terms, this coefficient can be interpreted as a decrease in the probability of becoming self-employed of 0.62 per cent. Relative to the baseline female self-employment rate of 7.3 per cent in 2000 (the year before the policy change), this corresponds to an economic decrease of 8.5 per cent ($0.0062/0.073 = 0.0849$).

To demonstrate that other potential reasons for mothers to become self-employed did not affect the treatment, we examine several control variables (Berk and Rauma, 1983). We find that higher education, marriage, and having more children increase the probability of becoming an entrepreneur. We also observe that the overall rate of female self-employment matters. These findings are in line with prior literature (Carr, 1996; Gottlieb et al., 2022; Joona, 2018; Kolvereid, 2018). Importantly, none of these factors alter our significant treatment estimate. The interaction term between the assignment variable and the treatment indicator is added to control for a possible false discontinuity (Angrist and Pischke, 2014). In both regressions, this term is non-significant, confirming that we are indeed following a linear functional form specification in the assignment variable *childbirth*. Taken together, altering mainly the duration of parental leave significantly affects mothers' tendency to become entrepreneurs, providing first empirical support for H1.

Effects of the money-expansionary (2007) policy reform. We then examine the effects of the 2007 policy reform that mainly altered the level of cash benefit payments during parental leave. To assess the impact of this policy reform, we use the sample of all 4706 mothers who gave birth in the years 2002–2011, again keeping a time frame of 5 years surrounding the reform.^[4] In this sample, we observe a total of 6942 births: 3594 before 1 January 2007 and 3348 after. Table A.II in the Appendix summarizes the means and standard deviations for the personal, household, and labour market characteristics of this sample.

Models 1 and 2 in Table IV show the results of our analyses of the 2007 reform. The assignment variable *childbirth* in these logistic regressions is non-significant, whereas the treatment coefficient is highly significant. Since both the assignment and treatment variables need to be significant for this type of RD to be reliable (Angrist and Pischke, 2014), these results show that there is no evidence for an effect of the 2007 reform on mothers' decisions to become self-employed. Thus, altering mainly the cash benefits paid during parental leave does not significantly affect mothers' entrepreneurial entry, providing initial empirical evidence against H2.

Additional robustness checks. We conduct several robustness checks to ensure that our results are not driven by factors other than the parental leave policy change. For brevity, we report only the findings for the 2001 reform. The results for the 2007 reform are similar (all detailed results are available upon request). First, we run placebo tests on the year of the policy change. Replacing the policy year with the years 1999, 2000, 2002, and 2003 and moving the bandwidth around the cut-off accordingly yields no significant results. In each of these specifications, either the assignment variable

Table IV. Study 1: Logistic regression analysis for the money-expansionary (2007) reform

	<i>Becoming a mother entrepreneur (2007)</i>	
	<i>Model 1</i>	<i>Model 2</i>
Childbirth (x_{it})	−0.299 (0.378)	−0.329 (0.388)
Treatment (D_i)	−0.362*** (0.0922)	−0.375*** (0.0934)
Childbirth*treatment ($x_{it}D_{it}$)	0.364 (0.437)	0.262 (0.446)
Time trend (t)	0.0295* (0.0156)	0.0482** (0.0240)
Female self-employment rate		0.250 (0.201)
Number of children		0.220*** (0.0517)
Age mother		−0.0236** (0.0111)
Years of education		0.200*** (0.0177)
Household net income (ln)		−0.489*** (0.106)
Marital status (1 = married)		0.248** (0.0980)
Intercept	−3.323*** (0.150)	−4.257** (1.924)
Person/year observations	14,168	14,168
Mc Fadden pseudo R^2	0.0043	0.0379

Note: Results for the estimation of Equation (1) using 'becoming a mother entrepreneur' as outcome variable and modifying the dataset to include the mothers that gave birth around the 2007 instead of the 2001 policy reform. Model 1 shows the results without control variables and model 2 includes all control variables. Robust standard errors in parentheses.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

childbirth or the treatment effect turns out to be non-significant (see Table A.III in the Appendix).

Second, we test whether the effect on mothers can also be found for fathers. We use the complete sample of men who became fathers between 1996 and 2005. The results (see Table A.IV in the Appendix) show no effect of the parental leave policy change on fathers' decisions to become self-employed (Angrist and Pischke, 2014). This indicates that our finding of mothers' decreased propensity for entrepreneurship is indeed a female-specific effect of the policy change.

Third, we test whether the effect could be affected by mothers who deliberately timed the birth of their child, and we remove those births close enough to the cut-off to be manipulated. This donut RD approach (see the [S1](#) for details and results) does not show any evidence of such an effect.

Finally, we narrow the reference category of mothers in our sample to those with the greatest labour market attachment. We do so by including only mothers who consistently reported receiving personal income prior to the birth of each of their children; that is, we make sure that we exclude mothers who stopped working entirely after pregnancy.^[5] The results are again stable for this reduced sample of mothers.

STUDY 2

Experimental Design and Sampling

To further test our hypotheses and complement the features and limitations of Study 1, we designed a conjoint experiment (Study 2), following established guidelines (Aiman-Smith et al., 2002; Karren and Barringer, 2002; Shepherd and Zacharakis, 2018). We manipulated parental leave policy changes along six attributes: the two main attributes time (duration of parental leave) and money (amount of parental allowance), two additional flexibility attributes (leave and money flexibility), and two additional support factors (childcare and support programs for female founders). We opted for this approach to gain a more granular understanding of policy changes and to better distinguish the impact of our primary variables from other potential influences on mothers' entrepreneurship, as identified in previous studies (Jayawarna et al., 2021; Markowska et al., 2023).

At the experiment's outset, we provided all participants with a brief overview of Germany's current parental leave policies to ensure a shared understanding. We asked respondents to imagine – if not already the case – that they will be on parental leave in the foreseeable future and that the government plans to enact policy changes that will affect them in various ways. We asked them to think carefully about how these changes, all else being equal, would affect their likelihood to become an entrepreneur. In the following scenarios, we manipulated the six attributes at two levels (high and low), resulting in $2^6 = 64$ possible decision profiles. We used an orthogonal fractional design to reduce the number of decision profiles to eight, and we replicated all profiles, randomizing their order within each participant's initial and replication rounds, resulting in 16 decision profiles plus one practice profile (Schüler et al., 2024). We pre-tested and refined our instrument with a sample of 46 mothers recruited via Prolific.

We used two panel providers (Prolific and Cint) to collect a purposive sample comparable to Study 1: women in Germany aged 18–45 who have children or plan to have children soon, are not students, and are not unemployed. We received a total of 217 complete responses, and after screening for careless responding (Meade and Craig, 2012), 136 respondents remained. We received 2176 decisions (Level 1) nested in 136 respondents (Level 2), providing sufficient power to obtain robust results (Scherbaum and Ferreter, 2009). On average, the women in our sample were 34 years old ($SD = 4.42$ years), had 9.77 years

of work experience ($SD = 6.39$ years), had 1.68 children ($SD = 0.82$), earned an annual net household income of about €125,000, with 75 per cent holding a university degree and all having a partner. Given these characteristics, we consider the sample appropriate for our context.

Measures

Independent and manipulated control variables (Level 1). We used two independent and four manipulated control variables to obtain a valid estimate of the relative importance of time and money in the decision to become self-employed. Adding manipulated controls beyond the main variables of interest allows us to provide a more comprehensive picture of the decision to enter self-employment and ensures that we do not inflate the estimates of our main variables. To produce externally valid scenarios, we used the present parental leave legislation in Germany as the basis for our manipulations. We manipulated the time component as the duration of parental leave (in years) and the money component as the amount of money (as a percentage of net income within a specified income range).

Among the four manipulated controls, we added two flexibility variables that cover how flexibly the time and money components can be distributed, following recent studies indicating that flexibility may play a key role beyond the amount of time and money (e.g., Markowska et al., 2023). These controls allow us to clearly separate the specific time versus money effects while testing whether it is the amount or the flexibility of time and money that matters. Furthermore, we controlled for the availability and quality of all-day childcare and government support programs for female founders, because both should have a more immediate and direct effect on entrepreneurial decisions than more distal policy effects (Brush et al., 2019; Langowitz and Minniti, 2007; Williams, 2004). Table A.V in the Appendix presents all attributes with all accompanying conditions.

Dependent variable (Level 1). In conjoint studies, the dependent variable is typically a single-item measure (Haynie et al., 2009; Patzelt and Shepherd, 2008). Following Douglas and Shepherd's (2002) study on self-employment as a career choice, we asked respondents, 'How likely are you to consider becoming full-time self-employed during or immediately after parental leave?' using a 7-point Likert scale anchored at 1 = 'very unlikely' and 7 = 'very likely'.

Measured individual-level control variables (Level 2). To account for individual differences that might impact the decision to become an entrepreneur, we measured several variables at Level 2, using 5-point Likert scales (1 = 'strongly disagree' and 5 = 'strongly agree'). We measured *promotion* ($\alpha = 0.83$) and *prevention focus* ($\alpha = 0.86$) using Wallace et al.'s (2009) 12-item regulatory focus at work scale. Promotion-oriented individuals seek means to complete a task, whereas prevention-oriented individuals seek to avoid things that prevent them from task completion, both playing an important role in the entrepreneurial process (Brockner et al., 2004; Hmielecki and Baron, 2008; Tumasjan and Braun, 2012). We also accounted for *individual entrepreneurial intentions* using Thompson's (2009) 6-item scale

($\alpha=0.97$), since intentions are known to be a reliable predictor of entrepreneurial behaviour (Krueger et al., 2000). We controlled for *work–life balance* using Hill et al.'s (2001) 5-item scale ($\alpha=0.82$, with one item omitted due to poor factor loading), because poor balance can lead to conflict, negatively affecting entrepreneurial activities (Jayawarna et al., 2021; Markowska et al., 2023; Williams, 2004). We controlled for *general experience* (*age and work experience*), since it is related to women's propensity to be entrepreneurial (Gielnik et al., 2018; Langowitz and Minniti, 2007), and *prior entrepreneurial experience*. We controlled for the *number of children*, since it can increase mothers' likelihood of becoming an entrepreneur (Gottlieb et al., 2022; Joona, 2018; Kolvereid, 2018). Finally, we controlled for *annual net household income* (0 = <€25,000 to 7 = €200,000 or more) and *education level*, measured as having a university degree (Langowitz and Minniti, 2007).

Results

Main analyses. Each of the 136 respondents provided 16 decisions (eight initial and eight replication responses), resulting in a total of 2176 observations. To assess the reliability of our results, we use the procedure of Schüler et al. (2024). The results of these tests suggest solid test–retest reliability, with non-significant slope difference tests and high ICC(3k) values ranging from 0.85 to 0.94. Table V presents the means, standard deviations, and correlations for all Level 2 variables and the dependent variable (we exclude manipulated Level 1 variables because their correlations are zero by design). No correlations exceed $r=0.70$. To test our hypotheses, we use a multilevel model with cluster robust standard errors to account for the nested data structure (multiple responses nested within respondents). Table VI presents the results. The fixed effects in our overall model explain about 58 per cent (marginal R^2) of the observed variance in the outcome, while the full model (fixed and random effects) explains about 79 per cent (conditional R^2), suggesting that our model explains a significant and relevant proportion of the variation in the dependent variable.

The results of Study 2 support our earlier findings. Only the duration of parental leave ($B=0.09$, $p=0.028$) positively and significantly affect the decision to become an entrepreneur, supporting H1. In contrast, the amount of parental allowance does not significantly affect the decision to become self-employed ($B=0.05$, $p=0.278$), rejecting H2. Neither the flexibility of parental leave time ($B=0.04$, $p=0.342$) nor the flexibility of parental allowance ($B=0.07$, $p=0.073$) affect the likelihood of women becoming an entrepreneur. However, the two manipulated controls – availability of all-day childcare ($B=0.20$, $p<0.001$) and government support programs for female founders ($B=0.27$, $p<0.001$) – have strong positive effects on the decision to pursue entrepreneurship. Among the additional control variables, entrepreneurial intent, entrepreneurial experience, and income positively influence the decision to become an entrepreneur. Conversely, age, work experience, promotion and prevention focus, number of children, holding a university degree, and work–life balance show no significant effect.

Exploring boundary conditions and checking robustness. We conduct additional analyses to explore meaningful boundary conditions and check the robustness and generalizability

Table V. Study 2: Conjoint experiment: Means, standard deviations, and correlations

	M	SD	1	2	3	4	5	6	7	8	9	10
1. Full-time entrepreneurship	4.74	2.08										
2. Promotion focus	3.97	0.59	0.37**									
3. Prevention focus	4.17	0.58	0.02	0.65**								
4. Entrepreneurial intentions	3.45	1.25	0.69**	0.50**	0.08**							
5. Age	34.38	4.42	0.28**	0.12**	0.03	0.13**						
6. Work experience	9.77	6.39	0.08**	-0.15**	-0.09**	-0.06**	0.25**					
7. Number of children	1.68	0.82	0.30**	0.02	-0.07**	0.22**	0.26**	0.53**				
8. Income	4.07	2.54	0.68**	0.43**	-0.00	0.68**	0.51**	0.13**	0.45**			
9. Entrepreneurial experience	0.70	0.46	0.62**	0.32**	-0.05*	0.70**	0.34**	0.13**	0.23**	0.65**		
10. University degree	0.75	0.43	0.51**	0.35**	-0.03	0.53**	0.29**	0.07**	0.17**	0.66**	0.55**	
11. Work-life balance	3.87	0.75	0.41**	0.30**	0.00	0.47**	0.09**	-0.04	0.22**	0.43**	0.36**	0.42**

Note: *M* and *SD* are used to represent the mean and standard deviation, respectively. **p* < 0.01; ***p* < 0.05.

Table VI. Study 2: Conjoint experiment multilevel regression results

<i>Estimation</i>	<i>Model I</i>			<i>Model II</i>		
	B	SE	<i>p</i> -value	B	SE	<i>p</i> -value
Predictors						
Parental leave duration	0.09*	0.042	0.028	0.09*	0.042	0.028
Parental leave flexibility	0.04	0.042	0.342	0.04	0.042	0.342
Parental allowance amount	0.05	0.042	0.278	0.05	0.042	0.278
Parental allowance flexibility	0.07	0.042	0.073	0.07	0.042	0.073
Childcare	0.20***	0.042	0.000	0.20***	0.042	0.000
Support programs	0.27***	0.042	0.000	0.27***	0.042	0.000
Controls						
Promotion focus				−0.03	0.254	0.895
Prevention focus				0.01	0.222	0.951
Entrepreneurial intentions				0.62***	0.122	0.000
Age				0.01	0.025	0.676
Number of children				0.08	0.142	0.697
Income				0.25**	0.066	0.000
Work experience				0.01	0.017	0.572
Entrepreneurial experience				0.59*	0.290	0.042
Work–life balance				0.1	0.133	0.206
<i>R</i> ² (conditional)	0.78			0.79		
<i>R</i> ² (marginal)	0.01			0.58		

Note: Decisions = 2176; respondents = 136; *B* = unstandardized regression coefficients; *SE* = cluster robust standard errors; *R*² (marginal) represents the variance explained by the fixed effects; *R*² (conditional) represents the proportion of variance explained by the entire model.
****p* < 0.001; ***p* < 0.01; **p* < 0.05.

of our findings. First, we draw from a family embeddedness perspective of entrepreneurship (Aldrich and Cliff, 2003; Eddleston and Powell, 2012) to explore household responsibilities and spousal support as boundary conditions. Second, we examine socioeconomic status as a boundary condition. Third, we test all models with the likelihood of becoming a hybrid (or part-time) entrepreneur as an alternative dependent variable.

First, women often shoulder a disproportionate share of household and care responsibilities, even when they work as much or more than their spouses (Eddleston and Powell, 2012; Parasuraman et al., 1996). From a resource perspective, spare time and effective support available in mothers’ daily lives may be crucial in shaping their entrepreneurial decisions. Thus, the time spent on household chores and the level of spousal support – both emotional and instrumental – may shape the effect of parental leave policies on mothers’ entrepreneurial decisions. For example, women heavily involved in the household may perceive more generous parental leave as a stronger

means to make time for entrepreneurial activities. Similarly, women receiving strong support from their spouses may view positive changes in parental leave policies as more conducive to starting a business because it strengthens their self-efficacy to pursue an entrepreneurial project.

We measured household and caregiving responsibilities by asking respondents to report the average number of hours per week spent on these tasks (Greenhaus et al., 2003). In addition, we use Eddleston and Powell's (2012) 4-item emotional support scale ($\alpha=0.86$) and the 4-item instrumental support at home scale ($\alpha=0.89$). The results (see Table VII) show that household hours strengthen the effects of parental leave duration ($B=0.01, p<0.05$) and parental allowance amount ($B=0.01, p<0.01$) on the decision to become an entrepreneur. The interaction effect of emotional support with parental leave duration is significant ($B=0.15, p<0.05$), whereas instrumental support does not exhibit any significant moderating effects. To further probe into the interactions, we employ Johnson–Neyman intervals to determine the range of moderator values for which the slope of the predictor variable is statistically significant (McCabe et al., 2018; Preacher et al., 2006). The mean number of household hours in our sample is 21.61 hours per week, and the effect on parental leave duration is significant from 19.16 h ($B=0.08, p<0.05$) and the effect on parental allowance amount is significant from 29.35 h ($B=0.09, p<0.05$). Regarding emotional support, the mean score is 4.04 (on a 5-point Likert scale), and the effect of parental leave length becomes significant at a score of 3.99 ($B=0.08, p<0.05$).

Second, we examine socioeconomic status as a boundary condition, since women's access to resources such as time and financial stability may shape their response to parental leave policy changes. We conduct a Latent Profile Analysis to identify latent unobserved groups within our conjoint data (Morin et al., 2018; Woo et al., 2018). We utilize a bootstrapped likelihood ratio test with 10,000 samples to determine the optimal number of groups (McLachlan and Peel, 2000; Nylund et al., 2007), using age, number of children, educational attainment (school and vocational degrees), income, and work experience as classifying variables. This procedure identifies two distinct profiles (see Figure 2). The first profile comprises 76 women who scored below the mean on the selected variables and can be broadly characterized as middle class. The second profile consists of 60 women, all of whom held a university degree and can be categorized as upper class. Separating the data by socioeconomic profile (see Table VIII) reveals that parental leave policies affect entrepreneurship differently across groups. Among upper-class women, we observe no significant main effects of the manipulated conjoint attributes. However, for middle-class women, the length of parental leave ($B=0.13, p<0.05$) and the availability of childcare ($B=0.32, p<0.001$) and support programs ($B=0.46, p<0.001$) have significant positive effects.

Finally, we test all models with an alternative dependent variable: the likelihood of deciding to become a hybrid entrepreneur (or part-time self-employed). The results of these additional analyses are available upon request and show that the positive effect of parental leave duration on the decision to become self-employed is consistent across these models. This underlines the importance of the time component of parental leave in women's decisions to engage in entrepreneurship, whether on a full- or part-time basis.

Table VII. Study 2: Results of the moderation analysis (boundary conditions)

<i>Estimation</i>	<i>Model I</i>			<i>Model II</i>		
	B	SE	<i>p-value</i>	B	SE	<i>p-value</i>
Predictors						
Parental leave duration	0.09*	0.042	0.028	−0.39	0.246	0.117
Parental leave flexibility	0.04	0.042	0.342	0.04	0.041	0.340
Parental allowance amount	0.05	0.042	0.278	0.02	0.246	0.919
Parental allowance flexibility	0.07	0.042	0.073	0.07	0.041	0.072
Childcare	0.20***	0.042	0.000	0.20***	0.041	0.000
Support programs	0.27***	0.042	0.000	0.27***	0.041	0.000
Controls						
Promotion focus	−0.08	0.257	0.767	−0.08	0.257	0.767
Prevention focus	0.03	0.223	0.879	0.03	0.223	0.879
Entrepreneurial intentions	0.55***	0.128	0.000	0.55***	0.128	0.000
Age	0.01	0.025	0.621	0.01	0.025	0.621
Number of children	0.08	0.151	0.610	0.08	0.151	0.610
Income	0.23****	0.066	0.000	0.23****	0.066	0.001
Work experience	0.01	0.017	0.672	0.01	0.017	0.679
Entrepreneurial experience	0.61*	0.306	0.045	0.61*	0.306	0.045
Work–life balance	0.09	0.143	0.517	0.09	0.143	0.517
House hours	−0.01	0.005	0.261	−0.01*	0.005	0.042
Emotional support	−0.06	0.164	0.722	−0.15	0.172	0.389
Instrumental support	0.22	0.147	0.139	0.27	0.153	0.075
Interactions						
House hours * leave duration				0.01*	0.002	0.049
House hours * allowance amount				0.01**	0.002	0.005
Emotional support * leave duration				0.15*	0.072	0.035
Emotional support * allowance amount				0.03	0.072	0.710
Instrumental support * leave duration				−0.06	0.060	0.344
Instrumental support * allowance amount				−0.05	0.060	0.381
R^2 (conditional)	0.78			0.79		
R^2 (marginal)	0.58			0.58		

Note: Decisions = 2176; respondents = 136; *B* = unstandardized regression coefficients; *SE* = cluster robust standard errors; R^2 (marginal) represents the variance explained by the fixed effects; R^2 (conditional) represents the proportion of variance explained by the entire model.
*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

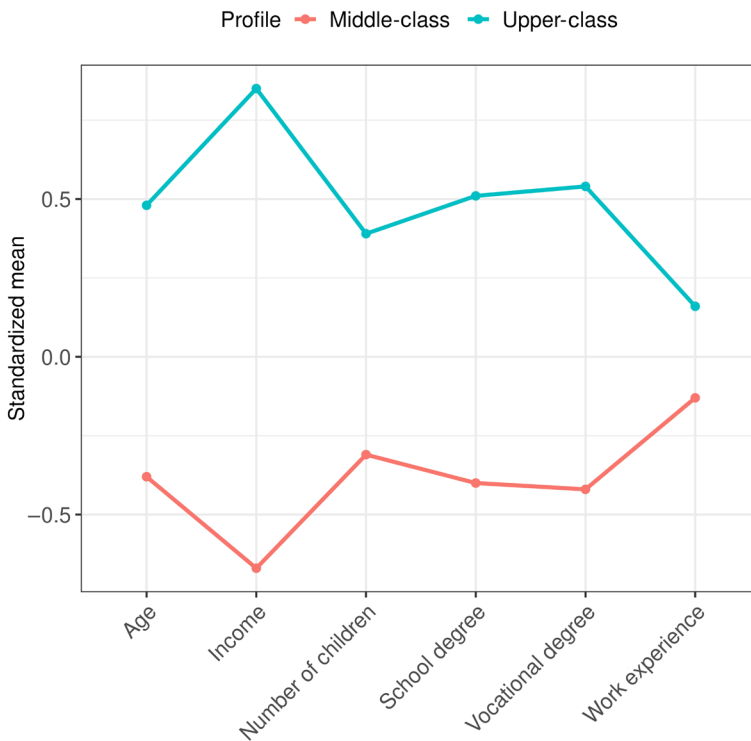


Figure 2. Study 2: Differences in mean scores between the two classes identified in the latent profile analysis (based on standardized variables)

DISCUSSION

Although more and more mothers are becoming entrepreneurs, we still know too little about the factors that encourage or discourage their decision to enter entrepreneurship. This study addresses the impact of parental leave policies on mothers' entrepreneurial entry decisions. Viewing parental leave through a resource lens, we understand it as a policy tool that affects entrepreneurship by regulating the availability of two resources: time and money. In two independent empirical studies, we consistently identify the time component (duration) of parental leave as a significant driver of mothers' entrepreneurship. The natural experiment (Study 1) reveals that shortening the duration of paid parental leave lowers the odds of mothers becoming self-employed by nearly 17 per cent. The impact of time also emerges in the conjoint experiment (Study 2), which examines the relative importance of parental leave components on mothers' entrepreneurial decisions. In contrast, we do not find significant main effects for the money component (amount of cash benefits) of parental leave in either study. Additional analyses in Study 2 show that women with greater household responsibilities value both a longer leave duration and a higher parental allowance, and women who receive strong emotional support from their spouses value a longer duration of parental leave. However, the effects of parental leave are contingent upon socioeconomic status. For middle-class women, the length of parental leave becomes a significant positive driver, whereas upper-class women seem to be much less receptive to parental policies in general.

Table VIII. Study 2: Results of the latent profile analysis

<i>Estimation</i>	<i>'Middle-class' latent profile</i>			<i>'Upper-class' latent profile</i>		
	<i>B</i>	<i>SE</i>	<i>p-value</i>	<i>B</i>	<i>SE</i>	<i>p-value</i>
Predictors						
Parental leave duration	0.13*	0.068	0.049	0.04	0.037	0.314
Parental leave flexibility	0.04	0.068	0.511	0.03	0.037	0.371
Parental allowance amount	0.04	0.068	0.543	0.05	0.037	0.180
Parental allowance flexibility	0.13	0.068	0.061	0.01	0.037	0.823
Childcare	0.32***	0.068	0.000	0.04	0.037	0.263
Support programs	0.46***	0.068	0.000	0.03	0.037	0.434
Controls						
Promotion focus	−0.15	0.336	0.645	−0.49	0.262	0.063
Prevention focus	−0.23	0.283	0.421	0.83**	0.258	0.001
Entrepreneurial intentions	0.67***	0.127	0.000	0.83**	0.321	0.009
Entrepreneurial experience	1.15***	0.310	0.000	−1.05	0.657	0.110
Work–life balance	0.25	0.159	0.120	0.25	0.217	0.253
R^2 (conditional)	0.69			0.64		
R^2 (marginal)	0.44			0.37		
Decisions	1216			960		
Respondents	76			60		

Note: *B* = unstandardized regression coefficients; *SE* = cluster robust standard errors; R^2 (marginal) represents the variance explained by the fixed effects; R^2 (conditional) represents the proportion of variance explained by the entire model. The variables used to identify the profiles were excluded from the analysis.

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

Theoretical Implications

A majority of women become mothers at some point, and the transition to motherhood significantly impacts their professional lives (Spitzmueller and Matthews, 2016). Beyond the challenges that women and mothers face within organizations (Gatrell et al., 2017; Grandey et al., 2020), they are also underrepresented in entrepreneurship (Rocha and van Praag, 2020). This raises the question – rephrasing Shane and Venkatarman's (2000, p. 218) famous line that has guided two decades of entrepreneurship research – ‘why, when, and how some [mothers] and not others discover and exploit opportunities?’ Our study aims to tackle this important and complex question by exploring the intersection of policy effects, resource availability, and female entrepreneurship, contributing new insights to ongoing scholarly discussions across these interconnected fields.

Our study reveals that institutional policies, though not originally designed to foster entrepreneurship (Arshed et al., 2014; Autio and Acs, 2010), can still influence entrepreneurial entry decisions, since they directly shape the life situation in which individuals (here, women) decide to become self-employed. We show that parental leave policies – typically aimed at regulating mothers' participation in wage employment (Thébaud, 2015) – can

have unintended consequences on entrepreneurship. While contractionary parental leave policy changes have been discussed as an incentive for mothers to quickly return to their prior (employed) jobs (Mari and Cutuli, 2021), our findings suggest that these may also serve as a disincentive to pursue entrepreneurial opportunities, at least if time resources are restrained. This emphasizes the intersection between the institutional context and gendered entrepreneurship, showing how policies can foster or prevent careers and (female) entrepreneurship in particular (De Clercq et al., 2013; Giménez and Calabrò, 2018).

From a resource perspective, our study challenges the assumption that more resources are always better when it comes to parental leave and its impact on mothers' entrepreneurship. Moving beyond this logic, we aim to offer a more complex and nuanced understanding of the design options of parental leave, thus contributing to the research studying policy effects. Our findings show that the impact of parental leave is not only about more or less generosity. Instead, the policy effects are more complex and require differentiation between time and monetary resources. The widespread assumption that the generosity of parental leave matters is probably because the components of time and money are naturally intertwined both in real-world policies and, consequently, in empirical studies on them (Asai, 2015). However, our research (especially Study 2) shows that separate consideration of these two policy levers reveals unexpected differences, namely, that time but not money has a significant influence on mothers' decisions to become entrepreneurs. Looking at the two components and their effects separately may therefore explain some of the mixed findings that have emerged in previous studies. Our study thus suggests shedding more light on what this generosity refers to and reveals that the time or money question is of central importance when evaluating the effectiveness of parental leave policy changes (Asai, 2015; Lalive et al., 2014).

With our resource perspective on time versus money, we also expand the primarily necessity-oriented narrative on women's entrepreneurship. This helps to advance the literature on women entrepreneurs and potentially other entrepreneurs who are usually considered necessity driven. Following the necessity narrative, one could assume that low monetary resources during parental leave should provide a decisive impetus for women to start a business. Instead, against the logic of more is better, the monetary component of parental leave does not have a significant impact on mothers' likelihood to become entrepreneurs. One explanation could lie in the contradictory effects of financial resources on innovation. While most research shows that individuals must feel comfortable with sufficient financial resources to innovate (e.g., Amabile et al., 1996; Amabile and Gryskiewicz, 1987; Katz and Allen, 1985), other studies indicate that financial resource *constraints* can stimulate innovative approaches and may encourage individuals to consider entrepreneurship as an alternative career (Baker and Nelson, 2005; Garud and Karnøe, 2003). Taken together, the monetary component of parental leave could be both an enabler and an inhibitor of entrepreneurship.

Our study also adds more insights into the role of time in entrepreneurial and innovative processes (Johnsen and Holt, 2023; McMullen and Dimov, 2013). In contrast to money, the availability of time plays a particularly important role for mothers in this study, underlining the qualitative results of Markowska et al. (2023). This highlights the importance of time as a crucial resource needed to explore and exploit innovative and entrepreneurial opportunities (Agrawal et al., 2018; Wood et al., 2021). Our analysis of the boundary conditions lends support to this perspective, indicating that women with greater household

responsibilities view higher parental allowance as beneficial for entrepreneurial activity, since they can use these additional resources to make time for entrepreneurial activities. In addition, women who receive strong emotional support and encouragement from their spouses seem to be more inclined to become entrepreneurs and value longer parental leave times. With that focus on time, we also contribute insights to research on career decisions.

Motherhood can act as a liminal life event, during which the availability of time plays an important role in career decisions. Liminal phases are periods in people's lives that precede or follow a major role change and are associated with identity reconstruction (Gross Spector and Cinamon, 2017). These phases can encourage individuals to engage in career exploration (Jiang et al., 2019), which may include thinking about leaving paid work and entering entrepreneurship (Daskalaki and Simosi, 2018). Our findings suggest that shortening (expanding) parental leave duration may undermine (support) an important transition phase that allows mothers to explore their careers and evaluate entrepreneurial opportunities (cf. Ladge et al., 2012).

Policy Implications

For policymakers, our findings indicate that parental leave policies are an important instrument that can promote or hinder female entrepreneurship. In particular, the time component plays a crucial role in affecting mothers' decisions to enter entrepreneurship among women who can be broadly classified as middle class. Longer parental leave periods significantly increase mothers' likelihood of becoming entrepreneurs by providing them with the time needed to explore and act upon entrepreneurial opportunities. An increase in parental allowance can especially provide women with significant household responsibilities the opportunity to free up time for the pursuit of entrepreneurial activities. In addition to designing parental leave policies, our findings suggest that policymakers should consider complementary measures to support mothers' entrepreneurship. These include ensuring the availability of all-day childcare options and implementing government support programs tailored to female founders, such as mentorship initiatives. Together, these measures create a supportive ecosystem that enhances the feasibility and attractiveness of self-employment for mothers during this transitional life phase.

Limitations and Avenues for Future Research

Each of the two empirical designs has its strengths and weaknesses. A possible drawback of Study 1 is the broad period of 5 years around the cut-off that is necessary to attain a sufficient number of observations. Since annual data may pick up annual fluctuations besides the policy reform, we control for this in the extended regression model by adding a time trend and controlling for the female self-employment rate. However, using such a longer period does have the advantage of including mothers for whom the business incubation time is longer.

Another caveat is that we demonstrate the relevance of parental leave policies for mothers' entrepreneurship in a country with historically generous parental and family policies and traditional family roles (Thébaud, 2015). Our research follows other studies that focus on countries characterized by a relatively high level of social welfare (e.g., Fontenay, 2024; Gottlieb et al., 2022) and may not be representative of other institutional contexts. For

instance, Germany's legal system only recently officially recognized same-sex relationships. Our samples are thus built around traditional families and only permit the identification of biological children. Exploring how parental leave policies affect same-sex couples and adoptive families would be an important avenue for future research. In addition, country-specific institutional conditions such as taxes may play an important role in women's participation in the labour market (and entrepreneurship). Moreover, parental leave policies and related labour force participation decisions are shaped by cultural context (Besamusca, 2020; Budig et al., 2012), social norms (Bullough et al., 2022), and mothers' preferences regarding economic dependence (Bergemann and Riphahn, 2023). Consequently, the cultural setting of the present study might influence women's attitudes towards work in general and calls for caution in terms of its applicability to countries with inherently different family policies. Unveiling how such cultural-institutional contexts affect our findings constitutes an important avenue for future research.

Moreover, we deliberately chose to examine mothers' voluntary decision to pursue entrepreneurial opportunities. Our additional analyses in the conjoint experiment reveal that social class membership may considerably alter the effect sizes of parental leave policies. For women in extremely precarious economic situations who enter entrepreneurship out of necessity rather than choice, these effects might even be more pronounced. Future research should therefore further explore the role of time versus money among women who, due to low socioeconomic status or limited opportunities in the labour market, have no choice but to become self-employed. Finally, it would be interesting to highlight how individual-level resources and prior experiences (e.g., with entrepreneurship) further accentuate or diminish the effects of parental policies.

Conclusion

Entrepreneurial entry decisions, especially for women, cannot be viewed in isolation from family factors (Aldrich and Cliff, 2003; Mathias et al., 2015; Vlasdel et al., 2021). This study highlights how parental leave policies alter mothers' access to entrepreneurship-critical resources and thereby make an important difference in whether or not entrepreneurial endeavours are realized. Our findings reveal that the time component (duration) of parental leave policies plays an important role in encouraging or discouraging mothers to pursue entrepreneurship, while the money component shows no significant effect. By differentiating the effects of time- and money-related policy components, this study contributes a more nuanced understanding of how policy design intersects with entrepreneurial resources and thereby influences female entrepreneurship. Additional analyses suggest that household responsibilities, spousal support, and socioeconomic class act as boundary conditions. In particular, generous time-based parental leave policies encourage middle-class women to become entrepreneurs, whereas upper-class women are less affected by any of the proposed parental policy changes.

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NOTES

- [1] Notably, our study focuses on mother entrepreneurs and does not aim to generalize the impact of parental leave policies to all women entrepreneurs. Yet, mother entrepreneurs represent a large and important subset of female entrepreneurs. In addition, even childless women tend to strongly consider the potential impact of having (future) children on their career decisions (Barbulescu and Bidwell, 2013).
- [2] Our sample comprises all births that took place in the period surrounding the policy change, since each birth entitles the woman to parental leave, regardless of the order of the birth (first, second, etc.). In our unbalanced panel setting, the first, second, or third birth is not necessarily the second or third birth of the same mother i ; it might therefore very well be that one mother i appears in our sample with her third birth before the policy change and another mother i appears in our sample with her second birth after the policy change.
- [3] In our sample of 181 mother entrepreneurs, 103 mothers became self-employed within 3 years after childbirth. This time span of 3 years after childbirth corresponds roughly to the combination of 34 months of allocated parental leave and the 14 weeks of maternity leave. A total of 98 mothers became mother entrepreneurs within the first 6 years after the birth of their first child, 66 mothers within 6 years after the birth of their second child, and 17 within 6 years after the birth of their third child. These 181 mother entrepreneurs correspond to 3 per cent of our total sample of mothers. Between 1996 and 2005, the German rate of female self-employment as a percentage of total female employment was 7.5 per cent (<https://ec.europa.eu/eurostat>). However, this 7.5 per cent includes all self-employed women, regardless of their age or whether they are mothers, which is a much broader definition than our mother entrepreneur definition. We therefore believe our sample of 3 per cent mother entrepreneurs from the GSOEP to be representative of the true share of mother entrepreneurs in Germany.
- [4] Both policy changes took effect on 1 January of the given year; therefore, the full 12 months of the year 2007 count in the 5-year time span.
- [5] We thank an anonymous referee for pointing out this possibility.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article at the publisher's web site.

APPENDIX

Table A.I. Parental leave entitlements in Germany, 2001 and 2007 policy reforms (comprehensive table)

Component	Variable	Reforms		
		Before 2001	2001	2007
Time	Total job-protected parental leave time in months	36 months		
	Share of <i>paid</i> parental leave time ^a	24 months	12 or 24 months	12 months
	Months of <i>unpaid</i> parental leave that can be flexibly taken between a child's third and eighth birthday	–	12 months (if the employer agrees)	12 months (employer's consent no longer required)
Money	Parental allowance per month of <i>paid</i> parental leave time	€300 ^a	12 months: €450 ^b 24 months: €300 ^b	Up to 67% of net income with a minimum of €300 and a maximum of €1800 ^c
Part-time	Permitted weekly hours of part-time work while on parental leave	15–19 h	15–30 h	

Note: In Germany, there are 14 weeks of maternity protection (6 weeks before and 8 weeks after childbirth). During this time, women are not allowed to work and are paid their average salary prior to birth. The 8 weeks after birth and the continued payment of wages are deducted from parental leave and parental allowance and are not granted in addition.

^aParental allowance is paid from a child's birth for the specified period of time, and it is tax-free.

^bThere were income limits in place: The allowance was only paid for the first 6 months after birth if the family's net annual income was <€30,000. From the seventh month onward, the limit was €16,500, and if the income was higher, the 12-month option deducted 7.2 per cent of the excess income, while the 24-month option deducted 5.2 per cent. Parental allowance was paid in addition to other social benefits.

^cParental allowance was paid if the family's taxable income does not exceed €500,000 per year. The minimum amount of €300 parental allowance is not offset against other social benefits.

Table A.II. Study 1: Descriptive statistics of mothers giving birth surrounding the 2007 reform

	<i>All other mothers</i>		<i>Mother entrepreneurs</i>		<i>Two-tailed t-test*</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
Number of children	1.97	0.87	2.12	0.76	0.01**
Years of education	13.09	2.68	14.22	2.86	0.00***
Net monthly personal income (€)	1044.83	709.52	887.00	886.18	0.02**
Work from home (%)	4.13	0.19	23.23	0.40	0.00***
Daily hours of child care	5.46	4.13	6.96	5.30	0.00***
Work in the evening (%) ^a	0.33	0.39	0.49	0.41	0.00***
Subjective family life satisfaction (10pt scale) ^a	8.15	1.55	7.85	1.61	0.02**
Age mother (years)	28.32	5.26	28.19	5.16	0.74
Marital status (% married)	57.48	0.44	61.54	0.44	0.23
Net monthly household income (€)	3086.02	1578.09	3179.68	2534.73	0.67
Home ownership (%)	40.38	0.42	40.12	0.42	0.93
Weekly hours of work	27.90	12.15	27.10	13.99	0.47
West Germany (%)	76.34	0.40	75.72	0.42	0.85
Subjective life satisfaction (10pt scale)	7.51	1.39	7.43	1.17	0.37
Subjective work satisfaction (10pt scale)	7.29	1.76	7.4	1.76	0.40
Age of mother when becoming entrepreneur			33.80	5.12	
Age of the youngest child when becoming entrepreneur			2.47	1.99	
Has employees in business (%)			13.45	0.32	
Number of mothers	4532		174		

Note: Descriptive statistics for the 4532 mothers in our sample who are not entrepreneurs and the 174 mothers who are mother entrepreneurs. *p*-values of two-tailed *t*-tests for differences in means between the two groups.

^aThese measures are observable across all mothers for at least 80 per cent of the sample.

****p* < 0.01; ***p* < 0.05; **p* < 0.1.

Table A.III. Study 1: Logistic regression analysis for placebo policy years 1999, 2000, 2002, and 2003

	Becoming mother entrepreneur 1999		Becoming mother entrepreneur 2000		Becoming mother entrepreneur 2002		Becoming mother entrepreneur 2003	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Childborn (x_{it})	0.440 (0.406)	0.605 (0.418)	-0.0647 (0.467)	0.0625 (0.477)	2.084** (1.007)	-1.760* (1.013)	-1.473** (0.717)	-1.120 (0.722)
Treatment (D_t)	-0.300*** (0.0942)	-0.329*** (0.0968)	-0.216** (0.0918)	-0.297*** (0.0965)	0.0119 (0.0879)	0.0181 (0.0887)	0.111 (0.0845)	0.0865 (0.0845)
Childborn*treatment ($x_{it}D_t$)	-0.968** (0.478)	-1.302*** (0.497)	-0.406 (0.324)	-0.650 (0.533)	1.898* (1.027)	1.372 (1.035)	1.208 (0.746)	0.604 (0.752)
Time trend (t)	0.101*** (0.0129)	0.0937*** (0.0244)	0.0990*** (0.0121)	0.0719*** (0.0176)	0.0244*** (0.00936)	-0.0197 (0.0129)	0.0142 (0.00933)	-0.0160 (0.0122)
Female self- employment rate		-0.0777 (0.174)		0.161 (0.144)		0.775*** (0.134)		0.751*** (0.124)
Number of children		0.587*** (0.0493)		0.560*** (0.0509)		0.318*** (0.0494)		0.285*** (0.0476)
Age mother		0.00218 (0.0115)		0.00232 (0.0109)		-0.00877 (0.0107)		-0.00941 (0.0101)
Years of education		0.141*** (0.0175)		0.155*** (0.0166)		0.151*** (0.0160)		0.155*** (0.0152)
Household net income (ln)		0.0598 (0.107)		0.0921 (0.107)		-0.0426 (0.105)		-0.229** (0.0976)
Marital status (1 = married)		0.195 (0.126)		0.0739 (0.118)		0.496*** (0.0991)		0.399*** (0.0901)
Intercept	-3.801*** (0.158)	-6.843*** (1.501)	-3.793*** (0.146)	-8.859*** (1.418)	-3.439*** (0.121)	-11.66*** (1.418)	-3.455*** (0.121)	10.000*** (1.361)

Table A.III. (Continued)

	Becoming mother entrepreneur 1999		Becoming mother entrepreneur 2000		Becoming mother entrepreneur 2002		Becoming mother entrepreneur 2003	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Person/ year observations	11,214	11,214	11,575	11,575	14,786	14,786	16,871	16,871
Mc Fadden pseudo R^2	0.0212	0.0705	0.0193	0.0702	0.0039	0.0478	0.0028	0.0395

Note: Results for the estimation of Equation (1) using ‘becoming a mother entrepreneur’ as outcome variable and modifying the treatment year to the years 1999, 2000, 2002, and 2003 respectively. Model 1 shows the results without control variables and model 2 includes all control variables. Robust standard errors in parentheses. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Table A.IV. Study 1: Logistic regression for father entrepreneurs

	<i>Become father entrepreneur</i>	
	<i>Model 1</i>	<i>Model 2</i>
Childbirth (x_{it})	-0.128 (0.229)	-0.134 (0.231)
Treatment (D_i)	-0.520*** (0.0677)	-0.436*** (0.0710)
Childbirth*treatment ($x_{it}D_{it}$)	-0.0831 (0.276)	-0.150 (0.279)
Time trend (t)	0.0390*** (0.00789)	-0.0177 (0.0170)
Male self-employment rate		0.403*** (0.128)
Number of children		0.224*** (0.0323)
Age father		-0.0563*** (0.00855)
Education years		0.112*** (0.0128)
Household net income (ln)		-0.0377 (0.0814)
Marital status (1 = married)		0.304*** (0.0820)
Intercept	-3.054*** (0.0845)	-8.065*** (1.705)
Person/year observations	20,848	20,848
Mc Fadden pseudo R^2	0.0107	0.0385

Note: Results for the estimation of Equation (1) using 'becoming a father entrepreneur' as outcome variable. Model 1 shows the results without control variables and model 2 includes all control variables. Robust standard errors in parentheses.

*** $p < 0.01$;

Table A.V. Study 2: Attributes of the metric conjoint experiment, including their descriptions and conditions

Attribute	Characteristics	Short description	Detailed description
Parental leave: Duration	Shortened/lengthened	Parental leave per child is shortened/extended by 1 year	<p><i>Shortened:</i> In the future, you will be able to take much shorter parental leave. Parental leave per child will be reduced by 1 year. Each parent will only be able to take up to 2 years of parental leave</p> <p><i>Extended:</i> You will be able to take much longer parental leave in the future. Parental leave will be extended by 1 year per child. In the future, each parent will be able to take up to 4 years of parental leave</p>
Parental leave: Flexibility	Reduced/increased	Only 50% of parental leave can be taken between the child's 3rd and 8th birthday. The permitted part-time working hours are reduced/Parental leave is made fully flexible up to the child's 10th birthday. The permitted part-time working hours are increased	<p><i>Reduced:</i> In the future, you will have less flexibility in scheduling your parental leave. Parents will only be able to take up to 50 percent of their parental leave between the child's 3rd and 8th birthday. The amount of part-time work allowed during parental leave will be significantly reduced</p> <p><i>Increased:</i> You will be able to plan your parental leave much more flexibly in the future. Parents will have a fully flexible parental leave budget, which they can use as they wish until the child reaches the age of 10. The amount of part-time work allowed during parental leave will be significantly increased</p>
Parental allowance: Amount	Reduced/increased	Parental allowance reduced to 60% of net income (min. €300; max. €1500)/parental allowance increased to 80% of net income (min. €400; max. €2100)	<p><i>Reduced:</i> Parental allowances will be reduced in the future, especially for higher incomes. Parents will receive up to 60% of their last net income as parental allowance. The minimum amount will remain at €300. The maximum amount will be reduced to €1500 and will be reached with a monthly net income of €2500</p> <p><i>Increased:</i> Parental allowance will be generally increased in the future. Parents will receive up to 80% of their last net income as parental allowance. The minimum amount will increase to €400. The maximum amount will rise to €2100 and will be reached with a monthly net income of €2635</p>

(Continues)

Table A.V. (Continued)

<i>Attribute</i>	<i>Characteristics</i>	<i>Short description</i>	<i>Detailed description</i>
Parental allowance flexibility	Reduced/increased	Total amount of parental allowance is paid out consistently over the first 12 months/ Total amount of parental allowance can be paid out flexibly over 6 to 24 months	<i>Reduced:</i> In the future, you will have less flexibility in how you receive your parental allowance. Parental allowance will always be paid for the first 12 months, without the possibility of reducing or extending the period. The total amount of parental allowance remains unchanged <i>Increased:</i> In the future, you will be able to have more flexibility in how you receive your parental allowance. Parents will be able to flexibly allocate the parental allowance over a period of 6 to 24 months. The total amount of the family allowance remains unchanged
Childcare	Bad/good	The options for all-day childcare are bad/good	<i>Bad:</i> The available options for all-day childcare are poor: There are limited options for all-day childcare <i>Good:</i> Options for all-day childcare are good: You have a wide range of reliable options for all-day childcare
Support programs	Limited/good	Government support programs for female founders are limited/good	<i>Limited:</i> There are limited government support programs specifically for female founders. The available resources and programs are limited <i>Good:</i> There are well-developed government support programs for female founders. They provide extensive support, training, and financial incentives to facilitate the transition to self-employment