The Welfare State Paradox for Women's Entrepreneurship

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Abstract: This article evaluates a central premise behind the scholarship on family policies and gender inequality: family policies are a double-edged sword for women's paid employment and thus have paradoxical consequences for women's entrepreneurship. Whereas prior research focuses on the work-family conflict, we argue that family policies intended to alleviate the work-family conflict may also contribute to a time-dependent pattern of women's entry into self-employment by affecting their wage employment opportunities. To test our propositions we use a longitudinal design that tracks Sweden's population from 1993 to 2012. By analyzing conditions regarding women's paid parental leave, work-skill attrition, and interfirm job mobility, our results show that family policies reduce women's rate of self-employment only temporarily following childbirth. As work-skill attrition and other forms of motherhood penalties occur over time, women's employment opportunities diminish and subsequently push them toward self-employment. An important implication of our findings is that women's disadvantages in self-employment are deeply rooted in wage employment, through which institutional pressures affect women's careers.

INTRODUCTION

Over the past few decades, social and economic changes in the family and the workplace have exacerbated incompatibilities between employees' work and family demands (Gerson, 2010; Glass & Estes, 1997; Greenhaus & Beutell, 1985; Jacobs & Gerson, 2004; Williams, 2010). In the family, the majority of married couples are dual-earners, who must coordinate two careers with family responsibilities (Bianchi et al., 2006; Curtis, 1986). In organizations, employers have sought greater flexibility by reducing the proportion of their standard employment but increasing individual employees' work hours (Cha, 2010; Epstein et al., 1999; Kalleberg, 2003; Osterman et

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al., 2001). The growth of work-family conflict constitutes a worldwide challenge that has a broad range of consequences cutting across many areas of concern to sociologists (Kelly et al., 2014; Pedulla & Thébaud, 2015).

Many scholars have noted the relevance of self-employment to work-family conflict (Budig, 2006b; Carr, 1996b; Jennings & Cash, 2006; Thebaud, 2015) and consider self-employment a unique option that provides autonomy and flexibility (Parasuraman & Simmers, 2001; Reynolds & Renzulli, 2005). Researchers have theorized that women, who are particularly vulnerable to role pressures from the work and family domains, often fall back on self-employment to combine paid work and childcare, unlike their male counterparts who pursue self-employment primarily to advance their careers (Budig, 2006b; Carr, 1996b; Loscocco & Leicht, 1993). Theories about women's self-employment have important implications for understanding gender inequality in the broad spectrum of career attainment, because the type of self-employment women are likely to pursue for work-life balance (i.e., necessity-driven entrepreneurship) often leads to a lower likelihood of reentering paid employment, substantial wage reductions, and other career setbacks (Budig, 2006b; Cliff, 1998; Loscocco & Smith-Hunter, 2004; Moore & Buttner, 1997; Morris et al., 2006).

Recognizing self-employment as an ideal setting to study the consequences of work-family conflict (Golden, 2001, 2008), scholars have called for more research on the role of family-friendly policies affecting self-employment by ameliorating work-family conflict (Thebaud, 2015; Tonoyan et al., 2010). A growing body of literature suggests that although women are economically disadvantaged in all countries, the size of their disadvantage in self-employment is much smaller in countries with extensive family policies (Langowitz & Minniti, 2007; Parasuraman & Simmers, 2001; Schade et al., 2013; Terjesen & Elam, 2010; Thebaud, 2015; Tonoyan et al., 2010; Verheul et al., 2012). The commonly invoked explanation states that women are less likely to be pushed toward self-employment out of the need for work-family balance when supportive family policies—extended paid parental leave, subsidized childcare, and

flexible employment arrangements—reduce the work-family conflict women experience in their wage jobs (Mandel & Semyonov, 2005; Mandel & Semyonov, 2006; Petersen et al., 2014).

In this article we contend that for a deeper and fuller understanding of the relationships between family policies and women's self-employment, one must investigate the mechanisms underlying the effects of family policies. The literature on self-employment focuses on the mechanism concerning work-family conflict, yet theories of welfare states and labor markets consistently argue that family policies not only reduce work-family conflict, but may also limit women's employment opportunities in high-paying jobs and their long-term earnings capacity (Charles, 1992; Hakim, 2000; Mandel & Semyonov, 2006; Orloff, 2009). As two mediating conditions, work-family conflict and employment opportunities may have opposite effects on women's entrepreneurship: whereas mitigated work-family conflict lowers women's self-employment rate, diminished wage employment opportunities may increase women's self-employment rate. Therefore, theoretical models of family policies and women's self-employment must incorporate both of the mediating mechanisms and the contingencies of their effects.

Surprisingly little, if any, systematic research has addressed the existence and role of such mediating mechanisms that drive the relationships between family policies and women's entrepreneurship. Indeed, most studies infer the mechanism concerning work-family conflict from the cross-sectional negative association between family policies and women's aggregated rate of entrepreneurship at the country level. There is no direct evidence of the conditions that link family policies—such as how much parental leave women take, their employment arrangements, and their earnings capacity after childbirth—and individual women's self-employment.

Furthermore, most prior research uses cross-sectional data to investigate the relationships between family policies and self-employment. By doing so, researchers implicitly take a static approach to careers, in contrast to the dynamic approaches advocated by career theorists (Carroll & Mosakowski, 1987; Haveman & Cohen, 1994; Pixley, 2008; Rosenfeld, 1992; Tilcsik, 2014). The literature on gender inequality in career attainment documents that gender inequality evolves

in a cumulative process, in which women's disadvantages are primarily due to barriers to subsequent advancement (Barnett et al., 2000; Diprete & Eirich, 2006; Fernandez-Mateo, 2009). From a career point of view, the effects of family policies on women's entrepreneurship may be time-dependent, changing over the life course of economically active women. Without longitudinal designs, it is difficult, if not impossible, to uncover the time-dependency of women's entrepreneurship.

Our study addresses the limitations of prior literature by synthesizing three bodies of research. First, we draw on studies at the intersection of work and family to illustrate the paradoxical effects of family policies on women's economic attainment (Mandel & Semyonov, 2005; Mandel & Semyonov, 2006). Second, we draw on the rising literature on employee entrepreneurship to formulate the links between paid employment opportunities and entrepreneurial activities (Dobrev & Barnett, 2005; Sørensen, 2007; Sørensen & Sharkey, 2014; Yang et al., 2015). Third, we extend the literature on cumulative gender disadvantages to develop theoretical predictions regarding the time-dependence patterns of women's mobility to self-employment following childbirth. We believe that addressing these limitations offers great potential to extend prior work on the work-family interface to the increasingly prevalent, but theoretically underexplored, area of self-employment, allowing us to assess the broader consequences of family policies for reinventing the family and its relationships to work (Budig, 2006b; Jennings & Brush, 2013; Thebaud, 2015; Tonoyan et al., 2010).

To test our theoretical predictions, we adopt a longitudinal design with a 20-year timespan from Sweden, a country "in the family-friendly corner of the world at the forefront of family policies" (Petersen et al., 2014). Our data track every employee's career history and life events for 20 years, collecting rich information on both the work and family contexts. Whereas most prior research uses data from multiple countries with limited information at the micro level, our approach echoes Thébaud's (2015) assessment that "future studies that rely on more *consecutive* years of data . . . within a *single* country case would be better equipped to evaluate

the theorized direction of the relationship between work–family institutions and gender stratification in entrepreneurship." Because Sweden has implemented extensive family policies on a large scale, and the effects of these policies have unfolded over the past few decades, the country offers an instructive research site for an in-depth investigation of the complex relationships between family policies and entrepreneurship.

THEORETICAL BACKGROUND: THE IMPACT OF FAMILY POLICIES

Welfare states often use policies targeted to meet the needs of families with children as the major instruments to reconcile parents' employment with their family responsibilities. Following Mandel and Semyonov (2005), we use family policies and welfare state interventions interchangeably to describe a wide range of state policies that constitute "welfare state regimes" (Esping-Andersen, 1990): paid leave for mothers, government-subsidized childcare, and the availability of part-time work. We review these family policies and comment on their effects on women's economic attainment in the Swedish context. We note that family policies in Sweden are more extensive and elaborate than in most other countries, even many of the Scandinavian gender-egalitarian welfare states.

Family Policies in Sweden

The first major family policy we examine is government-subsidized paid parental leave. Abundant evidence suggests that parental leave allows parents with caregiving responsibility to maintain their wage job and keep a significant proportion of their salary with short-term employment interruptions (Misra et al., 2011; Misra et al., 2007). The U.S. federal government does not provide any paid leave, and only a small percentage of relatively privileged employees have access to paid leave through their employers or their states (Gerstel & Armenia, 2009; Gornick & Meyers, 2003; O'Connor et al., 1999). In Sweden, paid parental leave was available for 3 months, 7 months, 12 months, and 15 months in 1955, 1975, 1980, and 1989, respectively. The current paid leave is 16-months with at least two months dedicated to either the father or the mother. The government subsidizes 80% of wage salary for parents taking parental leave, up to

an inflation-adjusted capped amount[1]. Employers may pay part or all of the remaining 20% and often does so even beyond the capped amount, so that parents are paid up to 80% or 90% of real wages depending on employer benefits (Gupta et al., 2014). Sweden's government-subsidized parental leave is much more generous than its neighboring country, Norway, where the government subsidizes 13-months of parental leave.

Second, subsidized childcare, often publicly provided, lowers the financial cost of purchasing private childcare and allows parents to return to work soon after childbirth. Countries such as Sweden, Norway, and France are known for extensive and high-quality childcare subsidized by their governments. The price for daycare in Sweden amounts to 1-3% of couples' combined income, capped at around than $160 for the first child, $105 for the second child, and $53 for the third and subsequent children[2]. All children are guaranteed a spot, although families in some cities might have to wait a few months. The long opening hours of childcare facilities in Sweden are particularly important in addressing work-family conflict (Gornick & Meyers, 2003).

The third major policy provides reduced work hours and part-time jobs or jobs with flexible hours and schedules. Part-time work is often cheaper to provide in Scandinavia than in the United States, because public insurance is universal and compulsory. In Sweden, employers pay a fixed percentage of employees' received wages, as opposed to paying a fixed premium for a health insurance plan. Accordingly, part-time work and flexible hours are widely available in Sweden, leading to the prevalence of ''one-and-a-half breadwinner'' couples, in which women are typically employed part-time while their spouses work full-time (Crompton & Lyonette, 2005; Rosenfeld & Birkelund, 1995).

Although these family policies were created to reconcile parents' employment with their caregiving responsibilities and foster gender egalitarianism, they disproportionally affect women (England, 2010; Pedulla & Thébaud, 2015; Petersen et al., 2014). Studies on gender

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[1] Currently 332,250 Swedish krona (SEK) per year, which roughly equals $39,800 (at the current exchange rate).

[2] At the current exchange rate

egalitarianism applauds Sweden's supportive family policies but ignores the well-preserved gender beliefs in the private domain. In most Swedish households, women are much more likely than their husbands to take parental leave and work part-time, due to their prescribed primary caregiver responsibilities (Bianchi et al., 2006; Hochschild, 1989; Sundström & Duvander, 2002). The gap between households' traditional gendered division of labor and welfare states' progressive family policies has been characterized as a "lagged adaptation" (Gershuny et al., 1994). When couples adhere to traditional gender norms in structuring their domestic labor, family policies that provide more flexibility that encourage a male breadwinner–female caregiver division of labor and perpetuate gender inequality at work (Dribe & Stanfors, 2009).

Family policies, work-family conflict, and employment opportunities

Sweden's family policies have paradoxical consequences for women's career attainment. On the one hand, these policies increase women's labor market attachment and provide them with more schedule control—that is, timing of their work, the number of hours they work, and the location of their work (Berg et al., 2004; Kelly et al., 2014)—over their wage employment. For employees facing competing expectations from work and family, control over one's schedule is a key resource that helps accomplish work tasks and reduce the "physiological or psychological costs" of work demands (Bakker & Demerouti, 2007). Nearly all of Sweden's family policies are designed increase women's schedule control and reduce the conflict between aspirations to paid work and caregiving responsibilities.

On the other hand, family policies also have unintended consequences for women's career attainment. When women take lengthy parental leave and part-time employment, they lose human capital and work experience, which constrains their earnings capacity (Petersen et al., 2014). Empirical evidence from cross-country comparative studies shows that family policies widen gender earnings gaps. Among the 20 countries Mandel and Semyonov (2005) studied, Sweden had one of the strongest state interventions but the largest net gender earnings gap. In

addition, extensive family policies generate segregating forces that sort women into female-typed occupations. In her study of 25 industrial countries, Charles (1992) notes that Sweden has the highest level of occupational sex segregation, mainly because the large service sectors sponsored by the welfare state provide mostly female-typed jobs, deepening the institutionalization of gender within the occupational structure. Thus, although family policies enable women to be economically active, they diminish women's employment opportunities by disproportionally sorting them into less lucrative positions.

These unintended consequences of family policies may be particularly detrimental for women's career attainment in the long term. *Ladders* and *racing,* the two metaphors often used to describe careers, highlight path-dependence in career advancement and the importance of the speed at which people progress along the tracks (Barnett et al., 2000; Lawrence, 1988). Rosenbaum's (1984) tournament model characterizes organizational careers as running a tournament, because success in future stages is largely dependent on current and prior successes. When rapid and continuous accumulation of human capital throughout one's career is crucial to climbing the job ladder, women's discontinuity in the labor market, and their work experience attrition following childbirth, will lead to cumulative disadvantages in the labor market, limiting their career opportunities in the long run (Diprete & Eirich, 2006; Fernandez-Mateo, 2009). This suggests that family-friendly policies—even though enacted to diminish labor market gender segregation and ensure gender-neutral employment opportunities—may lead to diminished opportunities for women's long-term career attainment.

TESTABLE PROPOSITIONS

If family policies are a double-edged sword for women's career attainment, how do the two mediating mechanisms—mitigating work-family conflict and diminishing paid employment opportunities—affect women's entry into self-employment? We unite the work-family literature with a growing literature on employee entrepreneurship and the body of work on cumulative

gender disadvantages to develop our theory of the paradoxical consequences of family policies for women's self-employment.

The rise of the literature on employee entrepreneurship marks an important turning point for research on self-employment (Brittain & Freeman, 1980; Campbell et al., 2012; Cooper, 1985; Sørensen, 2007; Sørensen & Fassiotto, 2011). For a long time, researchers viewed self-employment as distinctively different from conventional paid employment, and mostly explained individuals' decisions to enter self-employment as if they did not consider other opportunities. However, as Arum and Müller (2004:9) forcefully argue, "involvement in self-employment implies a process whereby individuals actively *decide*—after considering the perceived relative costs and benefits attached to distinct paths—whether to enter self-employment." Empirical studies suggest that transitions from self-employment to paid employment in established organizations are extraordinarily common (Burton et al., 2002; Sørensen & Fassiotto, 2011). In the United States, nearly 40% of men have been self-employed at some point by their 50s (Arum & Müller, 2004), and the corresponding percentage is about 30% in Sweden (Delmar & Davidsson, 2000). Individuals often decide to enter self-employment after comparing it to wage opportunities, either in one's current employing organization or other potential organizations.

Much of the literature on employee entrepreneurship draws on the sharpest structural formulation of job mobility, vacancy chain and vacancy competition models (Sorensen, 1977; White, 1970), to form their propositions about why and how wage opportunities affect entrepreneurship. Viewing job shifts as structurally induced events, vacancy chain models predict that the creation of vacant positions presents advancement opportunities to individuals and triggers job mobility. When multiple job openings are available, job mobility depends on workers' productivity resources and their relative achievement gains from the jobs (Rosenbaum, 1984; Stewman & Konda, 1983; White, 1970).

Applying structural models to entrepreneurship, scholars have sought to situate individuals in the social structure of established organizations to analyze their entry into self-

employment, in conjunction with mobility to wage employment (Burton et al., 2002; Carroll & Mosakowski, 1987). For example, Sørensen and Sharkey (2014) show how opportunity structures embedded in organizations shape the arrival of paid employment opportunities and indirectly affect individuals' entry into entrepreneurship. They propose that individuals are more likely to pursue entrepreneurial opportunities when alternative paid employment opportunities become less plentiful or blocked. Similarly, Kacperczyk (2012) contrasts two types of entrepreneurial opportunities, inside and outside the current employing organizations, and concludes that employees are more likely to strike out on their own when they have fewer internal venturing opportunities.

These arguments are consistent with organizational theories that view a lack of opportunities in organizations as a cause of employees' disengagement at work and their pursuit of alternatives. Kanter's (1977) seminal work demonstrates that organizational hierarchy presents the path of achievement and defines how employees perceive their jobs and themselves. By interviewing employees stuck at dead-end jobs, Kanter found that a lack of opportunities makes people less committed to their organizations and their work in general, leading them to seek substitutes for status, dignity, or value that they failed to obtain through mobility channels. Stone's (2007) in-depth interviews with women provide more direct evidence with regard to part-time and nonstandard employment. She shows that women's deviation from normal career paths—through either parental leave or part-time arrangements—leaves them "isolated, stigmatized, demoralized, and powerless." Many women noted that although they were able to go back to work after childbirth, their employment was associated with "mommy-tracks" or "second-class status" (Stone, 2007; Turco, 2010). Extending these arguments, employees are more likely to become disengaged at work and seek alternatives when they are denied opportunities for career advancement.

If family policies dampen women's career prospects in wage employment, they should instead increase women's representation in self-employment. Family policies may fuel women's

representation in self-employment by limiting their employment opportunities in two fundamental ways: by dampening women's career prospects for advancement within their current organizations, and by exacerbating the liabilities associated with women's intrafirm mobility. Aligning with White's (1970) claim that career processes operate within and between organizations, our arguments link self-employment to internal and external career opportunities.
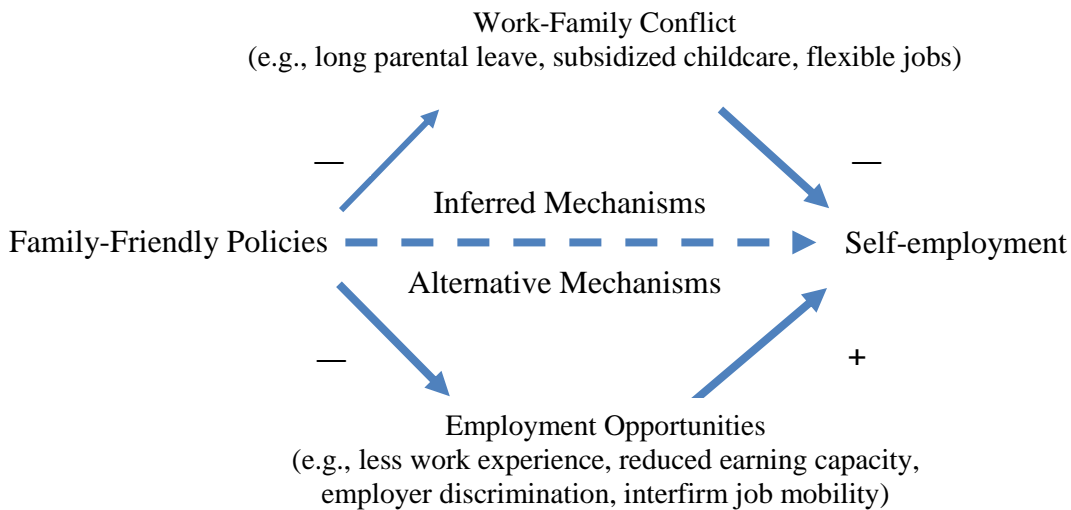
First, family policies may increase women's rate of self-employment by discouraging them from standard employment and segregating them into jobs that have limited potential for career advancement within organizations. Much of the literature on cumulative gender disadvantages attributes gender differences in promotions and career attainment to variations in skills and training (Barnett et al., 2000). Studies show that women with family responsibilities often move into jobs that involve less firm-specific human capital, which is crucial for internal promotion (Diprete & Eirich, 2006; Fernandez-Mateo, 2009). Employers' devaluation of the work done by mothers may further increase women's disadvantages in specific human capital. Scholars studying motherhood wage penalties persuasively argue that when family policies allow women to take long parental leaves and work part-time, employers are less likely to consider women for positions that require costly and intensive training (Budig & England, 2001; Tonoyan et al., 2010). However, those positions are more lucrative and have more potential for career advancement. Thus, family policies that support part-time and flexible work arrangements will possibly create situations where self-employment becomes an attractive alternative for women's career attainment. This view is consistent with Carroll and Mosakowski's (1987) and Amit et al. (1990) argument that employees turn away from wage employment opportunities and toward self-employment to the extent that they face gloomy career prospects in their wage jobs.

Second, lengthy parental leave and flexible employment are likely to increase women's job mobility across organizational boundaries, which, in turn, should increase their propensity to enter nonstandard employment, including self-employment. Studies assessing job-employee matching show that migratory work histories not only lead to diminished chances for internal

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promotions, but also increase the risk for nonstandard employment (Kalleberg, 2000). Recent

studies on precarious work show that organizations seeking greater flexibility in their

employment systems often use part-time workers for finite periods on an as-needed basis

(Jonsson, 2011; Kalleberg, 2000; Kalleberg, 2003; Rosenfeld & Birkelund, 1995). As dispensable

workforces, part-time workers are likely to be trapped in a "revolving door" of job mobility,

frequently entering and exiting job positions (Fernandez-Mateo, 2009; Jacobs, 1989). This

revolving-door pattern is often associated with work experience discontinuity, which happens

when paid employment opportunities are missing at the point of job search (Halaby, 1988;

Jayawarna et al., 2014). As a result, self-employment may become a temporary substitute for paid

work. Indeed, prior studies provide some descriptive results showing that self-employment often

serves as a transitional job between wage jobs (Gangl, 2006; MacLean, 2010; Shane, 2010).

Thus, family policies that create an employment system composed of flexible jobs for women

across many organizations will fuel women's representation in self-employment by increasing

their intrafirm job mobility. In this sense, women's transitions to self-employment reflect a

liability of inter-organizational mobility.

Taken together, our arguments suggest that a positive relation between family policies and women's self-employment may exist due to internal and external declining wage employment opportunities, alongside a negative relationship between them that is mediated by mitigated work-family conflict. The Figure below summarizes our conceptual framework, showing the theorized causal relationships between family policies and women's entry into self-employment. Most prior literature exclusively focuses on the negative relationship between family policies and women's self-employment that is mediated through work-family conflict. We incorporate an alternative

Conceptual model

Work-Family Conflict
(e.g., long parental leave, subsidized childcare, flexible jobs)

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Inferred Mechanisms

Family-Friendly Policies ▶ Self-employment

Alternative Mechanisms

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Employment Opportunities
(e.g., less work experience, reduced earning capacity,
employer discrimination, interfirm job mobility)

mechanism in the framework—diminished employment opportunities—through which family policies fuel women's entry into self-employment when their disadvantages in the labor market accumulate.

Our formulation suggests that family policies should contribute to a time-dependent pattern of women's entry into self-employment following childbirth. If lengthy parental leave and flexible work arrangements mitigate women's work-family conflict and have only temporary effects, women's rate of self-employment should remain similar before and after childbirth. However, as work-skill attrition and other forms of motherhood penalties accumulate over time,

women's employment opportunities in established organizations will diminish and subsequently push them toward self-employment.

Empirical Evidence on the Varying Effect of Motherhood on Entrepreneurship

A literature review of prior empirical studies indicate that among the four theoretical mechanisms for the motherhood-entrepreneurship relationship investigated in this paper, compensating differentials and employer discrimination/productivity difference have been less rigorously tested due to lack of direct measures. Although compensating differential has often been used to explain tradeoffs between wage earnings and work-family balance (Hamilton, 2000), prior research has not provided clear evidence to characteristics of wage employment that indicate work-family conflict. Cross-national studies demonstrate that countries with more supportive family policies have a lower rate of women's entrepreneurship, leading scholars to concluded that family policies mitigate work-family conflict and thus lower women's rate of entrepreneurship (Thebaud, 2015; Tonoyan et al., 2010). Effects of work-family conflict have been indirectly inferred from cross-national studies. . Studies using individual-level data come closer at examining women's experience in their wage job but have tended to rely on proxies such as coarse intervals of children's ages (i.e., 7 years younger or older), to capture family-to-work conflict(Budig, 2006b; Carr, 1996a). However, as Kelly et al. (2014) argue, work-family conflict fundamentally refers to the degree to which role responsibilities from one domain are perceived as interfering with the other domain. Without knowing the relevant characteristics of wage jobs it is difficult to assess the extent to which women are pushed into entrepreneurship by work-family conflict in wage jobs. Therefore, the compensating differentials argument, although commonly invoked, remains poorly tested in prior research on women entrepreneurship.

Similarly, although prior studies have treated employer discrimination/ productivity difference as one of the mechanisms that lead to motherhood wage penalty, scholars have not yet tested the mechanism rigorously. Most studies of motherhood penalties have not provided any evidence for employers' discriminations against mothers. A notable exception is the audit study

by Correll et al. (2007), showing that employers favor childless women over mothers in callbacks for job applications, hiring decisions, and wage offers among elite workers. No studies we know of have examined employer discrimination against mothers in low-wage jobs, leading most studies to infer the effects of employer discrimination from the net-of-experience penalty. A few studies attempted to use occupational conditions as a proxy for discriminations against motherhood. For example, Budig (2006b) argued that women may be more likely to encounter discriminations when they are tokens in male-dominated occupations.

In our study, we draw on a series of survey questions about employees' perceptions of their wage jobs to measure work-family conflict, and we compare structurally-equivalent mothers and childless women to capture the effect of employer treatment, either reflecting or amplifying productivity differences. Under the condition when "it is difficult to obtain data on discrimination and virtually impossible to match it to outcomes in large-scale national surveys" (Budig & Hodges, 2010), our approach may be the optimal approach available. By using these measures, we hope to more credibly assess how each of these mechanisms differentially affects women's entrepreneurial entry across the earnings distribution.

RESEARCH DESIGN

We use data from the Longitudinal Integration Database for Health Insurance and Labor Market Studies (LISA) from Sweden, which is constructed from governmental registers and maintained by Statistics Sweden for research purposes. The longitudinal design tracks every employee's career history and life events for 20 years, collecting rich information on both work and family contexts. In contrast to much of the prior work that has remained macroscopic by using multinational cross-sectional data, our approach echoes Thébaud's (2015) assessment that more *consecutive* years of data on *individual* women within a *single* country case are better equipped to evaluate the theorized effect of motherhood on entrepreneurship.

These data have three unique advantages for our research purposes. First, the longitudinal design tracks every employee in Sweden for twenty years, from 1993 to 2012 (although

occupational information only became available in 2002), collecting rich information on individuals' educational and work experience, such as their years of education, occupation, and wages. Second, LISA is a matched employer-employee database that links employees to their employers. Because the data have information on every employee's demographic characteristics and salaries, we can construct a variety of characteristics at the establishment level, including the wage gap between mothers and childless women within establishment-occupation units. Third, LISA also link individuals to their spouse or cohabitant partner via family ID, allowing us to construct spousal pairs and obtain rich information about the spouse's employment status and income.

Sample

The research design for our study must allow for an observation of individuals' life transitions and career histories. Thus, we constructed our sample from the original LISA database with four needs in mind.

First, we want to follow women from their early adulthood to middle age during the 20-year observation window. If they enter the initial year of the observation window too late, we would miss their important life events; if they enter the observation too early, we might miss transitions from wage employment to self-employment that are more likely to happen during one's 30s or 40s.

Second, because occupational data only become available since 2002 and our key independent variables for job characteristics and employer discrimination require occupational data, the observation window for women's transitions to entrepreneurship will be restricted to the period from 2002 to 2012, although we will use information on individuals from 1993 to 2001 to capture career trajectories and family events.

Based on the two considerations, we restrict our analysis to four cohorts of women, those born in 1966, 1971, 1976, and 1981, for whom our data are more likely to observe their prime ages for family and career transitions.

Third, our propositions concern the effect of motherhood on women at varying points of the wage distribution. Accordingly, we restrict our analyses to active labor participants: women who were employed at least two years from 2002 to 2012.

Finally, because we will use individual fixed-effects in our models to estimate the rates of women's entrepreneurial entry and the effects of motherhood, the data requirement for fixed-effect models would limit the sample to women who have experienced changes in both motherhood status and entrepreneurial status, i.e., women who become mothers and have changed their status from wage employment to entrepreneurship during our observation (Allison, 2005).

Dependent variable

Entrepreneurship stands at the intersection of multiple research areas and thus has been characterized by a variety of conceptual definitions. Following a long tradition in sociology, we define entrepreneurship as a labor market status that involves earning one's income through launching, organizing, and operating one's own business (Aldrich, 2005; Arum & Müller, 2004; Ruef, 2010; Steinmetz & Wright, 1989). In our definition, a necessary condition of entrepreneurship is that one must "earn an income at least in part through his or her own labor but not selling his or her own labor to an employer for a wage" (Steinmetz & Wright, 1989). An entrepreneur is thus distinguished from people either employed by others or earning an income without being employed at all, regardless of whether one has employees or the type of business one is running.

With such a broad definition, we focus on an important source of heterogeneity pertaining to the kinds of activity that individuals seek to pursue: whether an individual is self-employed in an incorporated or unincorporated business. The most common examples of unincorporated entrepreneurship --including childcare, housekeeping, and business and personal services -- do not require establishment of incorporated enterprises (Kim et al., 2013; Kwon et al., 2013). They are often small-scale and low-cost businesses run by solo proprietors, highly dependent on entrepreneurs' own production. Other entrepreneurs are small employers,

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incorporating their businesses and hiring employees (Arum et al., 2000; McManus, 2000). In practice, incorporating one's business requires more financial capital but is the first step toward hiring employees, as it limits owners' liability.

Accordingly, we measure transitions to entrepreneurship using a work status classification scheme that differentiates a variety of labor force attachments: (1) employed with established organizations, (2) unemployed, (3) not in the labor force, (4) self-employed in unincorporated business, and (5) self-employed in incorporated business (Berglann et al., 2011; Hamilton, 2000; Özcan, 2011). We create two dummy variables, one for self-employed in unincorporated business, one for self-employed in incorporated business.

To provide some empirical evidence to the difference between incorporated and unincorporated self-employment, we created a few variables to measure their differences: (1) whether a business is home-based, coded based on the geographic coordinates of the residence and the workplace; (2) number of employees working at the business; and (3) entrepreneurial income from the business (Loscocco & Bird, 2012).

An important difference between firm registration in the United States and Sweden is crucial to assessing the validity of our measure for entrepreneurship. Whereas survey data show that U.S. entrepreneurs often wait three to five years to register their firms with the government (Yang & Aldrich, 2012), entrepreneurs in Sweden have to register with their government to conduct any startup activities (Delmar & Shane, 2003). In Sweden, the first thing individuals do to become entrepreneurs is to register their business with the government. The legal environment in Sweden thus ensures that Swedish registration data have much more comprehensive coverage of new businesses than do registration data in the United States.

Independent Variables

Motherhood. We try a few different measures: (1) a dummy variable for whether a woman is a mother; (2) the number of children; (3) the number of children younger than 3 years old, and the number of children aged between 3-6 years old, and the number of children older

than 6 years. We also test whether the effects of motherhood vary by a few conditions: (1) women's age when she first become a mother; (2) a woman's *marital status*, whether she is married, divorced or single, or cohabiting with a partner. As Petersen et al. (2014) have noticed, cohabitation is important in Nordic countries and misclassifying it as single would generate some biases. In Sweden, cohabiting couples—living together but not married—are called *sambos* (shortcut for s*ammanboende*), which have a similar meaning as the term Common Law husband/wife in English. All official application forms have three boxes for civil status: unmarried, married, and "sambo." Sambo with children is legally similar to married except for inheritance (e.g., ownership of house or apartment) (Duvander, 1999).

  Earnings level. Because our propositions concern the effect of motherhood on women's probabilities of becoming entrepreneurs at varying points of the wage distribution, we need to measure a woman's relative position in the wage distribution. Accordingly, we first sort all women in our sample by their wage earnings from the year before they had first child, we then identify each woman's percentile rank in the wage distribution among all women. We use women's wage earnings from the year before they had first baby rather than the wage earnings from each individual-year observation, for two reasons.

  First, we do so to avoid a collinearity problem. If we use current wage for every year, including the years when women have become mothers, the wage variable itself will pick up some effects of the motherhood variable that reflect motherhood wage penalty, and perhaps also the effects of the conditions concerning foregone experience and productivity differences. Thus, we use wage prior to the first childbirth to show the effect of motherhood on women's decisions regarding entrepreneurship. Second, previous studies have shown that individual women's rank in the wage distribution is relatively stable although their wage changes over time. For example, England et al. (Forthcoming) found that about 85% of women moved less than 33 percentage points in rank within 4 years. Thus, wage earnings from the year before women's first childbirth is indicative of women's stable rank among their population. Also, notice that because we have

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multiple cohorts of women in our sample, the younger cohorts would much more likely to have higher income than the older cohorts at childbirth. Thus, we convert wages to constant 2016 SEK so the percentile ranks truly reflect their relative position in the wage distribution.[3]

Job characteristics and work-family conflict in wage job. A main characteristic of wage jobs that leads women to entrepreneurship is work-family conflict, which refers to the extent to which work and family demands compete for employees' attention and create psychological stress. We draw on data from the Swedish Work Environment Survey to construct measures for the level of work-family conflict women experience in their wage job. The survey is designed to characterize how two occupational conditions of the work environment, job-demand and job-control, affect job-related stress. Whereas job-demand represents the sources of stress in the work environment, such as large amounts of work and little time available to do specific tasks, job-control refers to decision-making authority, i.e., the freedom an individual has in what to do in his or her job. We use three survey questions from the job-demand module: (1) whether you can't relax or stop thinking at work during free time every week; (2) whether you have difficulty sleeping due to thoughts about work every week; (3) whether you feel too tired and a lack of time each week for family or friends. These questions are asked to a representative sample of employees from each occupation, and a continuous variable is created to indicate the percentage of employees in the occupation that have answered "yes" to each of the questions. We use the three percentage variables to measure the extent to which women's wage jobs are creating work-family conflict.

Foregone experience: We use two measures for foregone experience: First, the *length of parental leave* taken by an individual woman. The annual registries based on which LISA is constructed include precise information on the number of days of parental leave women take in each year. We create the variable, the cumulative number of days that women have taken parental

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[3] The main effect of wage level won't exist when we run individual fixed effect model, but we can include the interaction of wage level and other variables.

leave by the current year, to capture women's time out of employment for childrearing. Second, *years of unemployment during motherhood*. Because work-skill attrition is likely to happen when an individual is unemployed, we also create the variable -- the cumulative years of unemployment since childbirth – to measure foregone experience related to motherhood. Note that we start counting years of unemployment after individuals have taken their parental leave.

Employer discrimination. Ideal measures for employer discrimination may come from experiments or personal dairies that chronicle day-to-day work activities. However, these data are impossible to collect for large samples of individuals (Budig & Hodges, 2010; England et al., Forthcoming; Petersen et al., 2014). A possible way to measure employer discrimination in large-scale datasets is to measure their outcomes, the extent to which employees are paid equally for same work. Taking advantage of the matched employee-employer data, we first use a matching procedure to match mothers and childless women within the same organization, same occupation, same year, and the same education level, we then calculate wage difference between the matched mothers and childless women. A limitation of this approach is that it will create missing values for mothers in small establishments, because they basically do not have the "equivalent" childless women in the same establishment. Because our data include the entire population of employer organizations, we try to match mothers with their "equivalent" childless women in establishments that are identical to their establishment in a variety of important dimensions. It means that although the matched pairs of mothers and childless women are from different establishments, we match their establishments by using information on the workplaces, including establishment size, establishment age, 3-digit industry, the sector (public versus private) and the municipality. Because these establishments are nearly identical to each other on conditions that matter for pay, we assume that they would pay the structurally equivalent employees same or at least similar salaries.

Control Variables

Individual-level

We control for individual-level variables that are particularly important for self-employment and the sorting of individuals into employing organizations (Sørensen & Sharkey, 2014). First, we control for individual ascribed and achieved characteristics that may be associated with self-employment: (1) years of work experience. Second, we use variables measuring the influence of the spouse's self-employment status: (2) whether spouse has been self-employed, and (3) the spouse's current salary income. Second, we use information on individuals' previous employers, including (4) the average size of previous employers and (5) the average age of previous employers.

Establishment-level

We control for establishment characteristics that previous research suggests are influential for employees' entry into entrepreneurship: workplace size, age, the number of employees with prior startup experience and the institutional sector (Sørensen & Sharkey, 2014). (1) We measure size by the log of the number of employees in an establishment. We use the log function because the distribution of firm size is highly positively skewed: most organizations are quite small, but a small group of organizations has thousands of employees. (2) We measure age as the natural logarithm number of years since establishment founding. We use the log variable in our models because both descriptive and model results show that the log variable is a better fit for the nonlinear relationships between establishment age and employees' rates of transitioning to entrepreneurship. (3) We count the people who are currently working as paid employees in organizations but were self-employed before being hired by the current organization; and (4) the institutional sector of the current workplace (the private versus public sector).

ANALYTICAL STRATEGY

Because our dependent variable is a woman's first entry into entrepreneurship and our propositions concern the effect of motherhood, we use a fixed-effects method for non-repeated

events. It allows us to control for unobserved conditions that may select women into motherhood as well as entrepreneurship, such as risk attitudes, personal ideals for life and career, and family background that cultivated such personal preferences. A common approach to estimating fixed-effects models for dichotomous outcomes is conditional logistic regression which uses variations within individuals to create difference scores, thus individuals who do not have any variability in the dependent variable are omitted (Allison & Christakis, 2006). In our analyses, conditional logistic regression limits the sample to women who have become entrepreneurs during the observation period and exclude those who did not make the transition.

In addition to controlling for unobserved heterogeneity, a conditional logistic regression also allows us to handle left truncation, which occurs in our design when we focus on the first entrepreneurial entry and exclude individuals who have entered entrepreneurship first time before the starting point of the observation window. Thus, women who waited longer to enter entrepreneurship are more likely to be selected into our sample. As Guo (1993) has argued, when the initial time of being at risk is known, a conditional likelihood approach can effectively address left-truncation by specifying the actual length of time that individuals were exposed to the risk of the outcome event. Fortunately, because we know the actual start time of women's exposure to the risk of entrepreneurial entry – the year when they start their first job and become part of the labor force, we can handle left truncation with a Conditional Likelihood Approach.

However, a limitation of conditional logistic regression for non-repeated events is that it often introduces biases to estimates of any independent variables that are correlated with time. Because the non-repeated dependent variable occurs at the end of the observation period, when there is any tendency for an independent variable to increase over the period of observation, conditional logistic regression will produce a spurious relationship between the independent variable and the outcome variable. For example, because we will be modeling a woman's transition to entrepreneurship and our observation of the woman will end once such an outcome occurs, if our key independent variable, motherhood (the incidence of having the first child),

tends to monotonically increase over time, the event of childbirth will appear to increase the likelihood of entrepreneurial entry even when a causal relationship between the two does not exist. In this situation, a time variable cannot be included in the model to eliminate the spurious correlation between childbirth and entrepreneurial entry, because time itself monotonically increases over time and will be a strong predictor of the event outcome "entrepreneurial entry" that occurs at the last point in time. We examine whether the probability of having the first child is a monotonic function of time. If there is no evidence for the monotonic pattern in the data, then it did not violate the "time-independence" assumption. In Figure 1, we plotted the probability of having the first child over women's age, and the plot clearly shows an inverted U-shape pattern that women's probability of having the first child increases from age 20, peaks between age 25 to age 35, and decreases afterwards. Hence the time-independence assumption seems justified for our data (Allison & Christakis, 2006).

[Insert Figure 1 Here]

RESULTS

We first describe women's probabilities of entering unincorporated and incorporated entrepreneurship, contingent on their wage level. We then establish a baseline for hypothesis testing, clarifying the effect of motherhood on women's entrepreneurial activities, after controlling for family and career conditions. Building on the baseline, we test our specifications, examining the mechanisms theorized to drive the effects of motherhood on women's likelihood of entrepreneurial entry.

Descriptive Results

We first compare men's and women's representations in incorporated and unincorporated self-employment, the two forms of entrepreneurship that have different ramifications for gender stratification. Results in Table 1 show that about three-quarters of unincorporated self-employment is home-based, located in the entrepreneur's residence, but only a quarter of

incorporated self-employment is home-based. According to Loscocco and Smith-Hunter (2004), home-based businesses represent an inexpensive location option and provide more schedule flexibility to entrepreneurs. In addition to the location difference, unincorporated businesses tend to be much smaller (Figure 2.A) and less profitable than incorporated businesses (Figures 2.B. and 2.C.). Whereas 80% of unincorporated businesses are solely dependent on solo proprietors without any employees, the vast majority of incorporated businesses have employees. Furthermore, the income gap between incorporated and unincorporated self-employment is remarkable. About 40% of entrepreneurs have deficits in unincorporated businesses, and 30% of entrepreneurs make less than 100,000 SEK a year in unincorporated businesses (about $12,278 USD).[4] However, less than 1% of entrepreneurs have deficits in incorporated businesses, and 75% of them make at least 100,000 SEK. These results are consistent with Loscocco and Smith-Hunter (2004) finding that unincorporated self-employment is mostly home-based, and it is more likely than incorporated self-employment to serve as a route for necessity-driven entrepreneurship (Loscocco & Smith-Hunter, 2004).

Table 1 shows substantial gender differences in the likelihood of engaging in incorporated versus unincorporated self-employment. Among women entrepreneurs, 74 percent are involved in unincorporated self-employment, compared to only 60 percent of male entrepreneurs. Male and female entrepreneurs within the same business type, however, are quite similar. For example, businesses started by male and female entrepreneurs do not show any significant difference in the number of employees they hire. Also, unincorporated businesses started by male and female entrepreneurs generate comparable income, although we do see a noticeable gender difference in income among men and women starting incorporated businesses. These descriptive results suggest that unincorporated and incorporated self-employment represent two distinct career paths, stratifying male and female entrepreneurs. They provide evidence for

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[4] At the current exchange rate.

the compensating differentials argument: women with caregiving responsibilities may trade earnings for the family-friendly aspects of self-employment (Budig, 2006a).

We now turn to the conditions theorized to mediate the effects of family policies on individuals' career attainment and family life. First, with regard to paid parental leave, current paid leave in Sweden is 16-months, with at least two months dedicated to either the father or the mother. However, Figure 3A shows that Swedish women, on average, take about 150 to 200 days of leave following childbirth, whereas Swedish men, on average, take fewer than 50 days of parental leave. Although paid parental leave was created to reconcile parents' employment with their caregiving responsibilities and foster gender egalitarianism, it is mostly taken by women because traditional cultural beliefs about gender still govern private life (Berk, 1985; Bygren & Duvander, 2006; Gorman, 1999; Thébaud, 2010). The substantial gender gap in parental leave may contribute to women's lower work experience and make them less competitive for jobs that are more economically desirable (Angelov et al., 2016).

We also examine men's and women's cumulative years of unemployment since the birth of their first child. These numbers do not include the temporary work discontinuity caused by parental leave, so they should be interpreted as work-skill attrition subsequent to parental leave. Figure 3.B. shows that women, on average, have more years of unemployment experience than do their male counterparts, and the gender unemployment gap monotonically grows over time. Although Swedish women, in general, have a much higher labor participation rate then women in other countries, they still occasionally opt out of their wage jobs due to family responsibilities. Even if women are only temporarily out of the labor force, the work-skill attrition associated with extended parental leave and subsequent spells of unemployment may dampen their job prospects in the long run (Angelov et al., 2016).

In addition, our descriptive results provide preliminary evidence for women's diminished earnings capacity associated with motherhood. Figure 3.C. compares average wage salaries for the four social groups: childless men, childless women, fathers, and mothers. Our results

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highlight motherhood penalties and fatherhood wage premium: mothers, on average, make less income than childless women, whereas fathers, on average, make more income than childless men (Correll et al., 2007; Hodges & Budig, 2010). Parenthood seems to amplify the gender wage gap between men and women. The increased wage gap between fathers and mothers also indicates women's cumulative disadvantages on wage employment.

Establishing a Baseline

Building on our descriptive results that women encounter career setbacks as they make family-work decisions based on family policy benefits, we next examine patterns of women's self-employment in Sweden by conducting conditional fixed-effects logit models. Although our research focus is women's necessity-driven entrepreneurship, we analyze women's rates of unincorporated and incorporated self-employment and compare them to men's. Because our question of interest is how family policies shape the self-employment patterns of men and women with family responsibilities, the analyses in Tables 2-6 restrict the analyses to individuals-years since people became parents. In unreported models we first estimated the models with a full sample including both parents and childless men and women which yielded consistent results with regard to the time-dependence patterns of self-employment, but the coefficients of child age were much larger from the model that includes only parents.

We find substantial differences between the time-dependence patterns of unincorporated and incorporated self-employment. Both men's and women's likelihood of unincorporated self-employment are positively associated with ' Log first child's age' (ß=0.223 and 0.080 for men and women, respectively, both at *p*>0.001), but their likelihood of incorporated self-employment is negatively associated with age of the first child (ß=-0.102 and -0.128 for men and women, respectively, both at *p*>0.001). We interpret these patterns in that intensified family responsibilities—either breadwinning or caregiving—may push men and women into low-cost, home-based businesses, but they limit individuals' opportunities to start enterprises that would hire employees or make substantial profits. However, we also found that women's entry into self-

employment, either incorporated or unincorporated, is more heavily dependent on their family responsibilities than is their male counterparts'. This confirms Carr's (1996b) argument that a theory of self-employment must incorporate familial characteristics.

Figure 4 displays the time-dependence patterns of self-employment to better describe the magnitude of changes. The plots in Figure 4 show that on average, women's probability of entering unincorporated self-employment starts to rise at the very beginning of the childrearing stage. This suggests that women are still vulnerable to changes caused by motherhood—the work-family conflict and discontinuity at work—and may fall back on self-employment in countries where supportive family policies are supposed to reduce work-family conflict and work discontinuity. More important, women's probability of unincorporated self-employment tends to increase slowly after childbirth and then grows rapidly. The average increase in women's likelihood of entering unincorporated self-employment is 40% within the short time period since a child's birth. However, by the time a child reaches age 3, the average increase in women's likelihood of unincorporated self-employment has doubled. By the time a child is 10 years old, the likelihood of unincorporated self-employment will increase by a factor of three. These results suggest that women in countries with extensive family policies are more likely, rather than less likely, to enter necessity-driven entrepreneurship due to family responsibilities. Note that these time-dependent patterns hold after we control for important workplace and career conditions theorized by the employee-entrepreneurship literature to affect men's and women's rates of self-employment. Because the magnitudes of the effects are so large, we now turn to investigate the mechanisms by which family policies fuel women's representation in unincorporated businesses, which are generally low-cost and low-growth.

We interpret the significant effects of some control variables in Table 2, because they provide evidence for the differing mechanisms that sort men and women into different forms of self-employment. Having a married spouse is positively associated with the likelihood of self-employment, especially women's likelihood of incorporated self-employment. Because most

couples are dual-earner in Sweden, having a married spouse provides economic security and more financial resources for entrepreneurial activities. Interestingly, the same financial benefits do not come from cohabitation, which is common among Swedish couples. Our additional analyses of cohabiting couples and married couples show that cohabitation is a less stable relationship than marriage: cohabiting couples often switch their registration status between single-parent and cohabitation. This suggests that only stable relationships embedded in marriage provide strong enough support for individuals' entrepreneurial endeavors.

The Paradoxical Consequences of Family Policies for Self-employment

Building on the baseline findings, we now explore the alternative mechanisms theorized to mediate the effects of family policies on self-employment: (1) length of paid parental leave taken; (2) unemployment status since the first child's birth; (3) wage income loss since first child's birth; and (4) interfirm job mobility. We argue that these conditions may exacerbate women's disadvantages in the labor market and eventually push them toward necessity-driven entrepreneurship; yet, these conditions may also temporarily lower women's likelihood of necessity-driven entrepreneurship by reducing their work-family conflict.

Paid parental leave

Paid parental leave is a major family policy intended to reconcile work commitment and family responsibilities. It allows parents with caregiving responsibility to maintain their wage jobs and keep a significant proportion of their salary with short-term employment interruptions (Evertsson, 2014; Gornick & Meyers, 2003; Haas, 1992; Misra et al., 2011; Misra et al., 2007). Table 3 replicates the baseline model of Table 2 with the additional variables (control variables surpressed). These, together with Figure 5, illustrate the time-dependent effects of paid parental leave on the likelihood of self-employment. Overall, the variable 'Days of Parental Leave Taken' is not associated with women's likelihood of unincorporated self-employment ($\beta=0.009$, $p<0.10$) but is so for their likelihood of incorporated self-employment ($\beta=0.077$, $p>0.001$). For men, both types of entrepreneurship are negatively related to days of paid parental leave. Examining the size

of the coefficients, we note that the positive relationship between paid parental leave and women's representation in incorporated self-employment is rather modest, suggested by the small differences between women taking 50 days of parental leave versus women taking 350 days of parental leave. The additional 300 days of parental leave are associated with an increase of less than 50% in the likelihood of unincorporated self-employment. Compared to the models in Table 5-7 which investigates the effects of alternative mechanisms of reduced employment opportunities, relatively speaking, paid parental leave which reflects our baseline mechanism of reduced work-family family conflict does not have a strong effect on the likelihood of women becoming self-employed.

Table 3 also introduced the variable 'Days of Parental Leave *Log first child's age' which marginal effects is plotted in Figure 5.B. Surprisingly, the plot indicate that the association between paid parental leave and women's incorporated self-employment is curvilinear, starting as weakly positive within the first two years since childbirth, but becoming negative afterward. Because the first two years are when women take their parental leave, it is possible that some women experiment with running a business when they are free from wage job responsibilities. Recall that Figure 3.A. shows that women with more education are more likely to take longer parental leave. The initial positive effect of parental leave on incorporated self-employment might be driven by highly educated women, who otherwise would not have a chance to try entrepreneurship. Yet, the primary pattern in the plot in Figure 5.B. is that as soon as women return to paid wage jobs after taking parental leave, the work-skill attrition associated with paid parental leave substantially reduces their likelihood of incorporated self-employment. The negative association between paid parental leave and incorporated self-employment is so large that, on average, the likelihood of incorporated self-employment is reduced by half for women who have taken 250 days of parental leave. Our results regarding the effects of paid parental leave for women's self-employment suggests that family policies to work-family conflict seem to

reduce women's access to lucrative or power positions, where people acquire resources and skills needed for managing a high-growth business with employees (Bygren & Gähler, 2012).

Unemployment status since first child's birth

Although family policies increase women's labor participation rates, they also cause potential work discontinuity as women try to get back to work after taking parental leave. The second alternative mechanisms for how family policies impact men's and women's long-term self-employment thus focuses on the impact of men's and women's unemployment in their careers after a first child. Our descriptive results in Figure 3.B. show that women on average have more years of unemployment experience than their male counterparts following parenthood, and that the gender gap in the likelihood of unemployment monotonically grows over time. Table 4 replicates the baseline model of Table 3 with the additional interaction variable 'Unemployment * Log Child's Age' to investigate the effects of unemployment since childbirth for men's and women's self-employment. The interaction variable shows that unemployment since childbirth is strongly associated with the likelihood of unincorporated self-employment for men (ß=0.069, *p*>0.001) but especially for women (ß=0.266, *p*>0.001). However, it is not related to the likelihood of incorporated self-employment (ß=0.266, *p*>0.001) (Özcan, 2011). This provides further evidence that work-skill attrition and work discontinuity increase necessity-driven entrepreneurship in our data, but not the type of entrepreneurship that has greater potential for profit or growth (Åstebro & Tåg, 2015).

We note important time-varying patterns of the effects of unemployment on men's and women's necessity-driven entrepreneurship in Figure 6.A. Within the first four years since the birth of the first child, the association between unemployment and women's likelihood of unincorporated self-employment is much smaller than on men's. This suggests that women are much more tied to childcare responsibilities than men, which prevents them from engaging in paid work (Sundström and Duvander 2002). However, the association between unemployment and women's likelihood of unincorporated self-employment increases dramatically over time,

growing by a factor of 1 every year of parenthood. These results provide compelling evidence that women's work discontinuity is detrimental for their long-term career attainment (Angelov et al., 2016). The longer women stay unemployed when having small children, the less likely they will be able to reenter wage employment. Hence self-employment may become a more feasible backup option for women after their first few years of childrearing.

Wage income loss since first child's birth

The third alternative mechanisms for how family policies impact men's and women's long-term self-employment concerns the effects of their reduced earnings potential following childbirth. Following prior research on employee entrepreneurship (e.g. Campbell et al., 2012; Elfenbein et al., 2010; Sørensen & Sharkey, 2014), we argue that individuals with limited earnings capacity are more likely to enter unincorporated self-employment. We thus use individuals' wage dynamics to measure employees' advancement opportunities. In particular, we examine whether men and women are more likely to enter self-employment if their current annual wage is less than their annual wage before their first child was born. This approach is consistent with the motherhood penalty literature that focuses on wages to examine career changes associated with family responsibilities (England et al., 2016).

Table 5 replicates the baseline model of Table 3 with two additional variables: 'Wage Penalty since Childbirth' and ''Wage Penalty since Childbirth * Log Child's Age' to show two important findings. First, wage loss since first childbirth is negatively associated with on the likelihood of unincorporated self-employment for women ($\beta= -0.211$, $p>0.001$), but not for their likelihood of incorporated self-employment. For men, the effects of wage penalty since first child on both unincorporated ($\beta=0.461$, $p>0.001$) and incorporated ($\beta=0.187$, $p>0.01$) is positive. This provides further evidence for the necessity-driven characteristic of unincorporated self-employment: individuals with limited alternative opportunities are more likely to strike out on their own. Second, wage loss has a dramatically different relationship with men's and women's unincorporated self-employment. As shown in Figure 7.A., the association between wage

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penalties and women's likelihood of unincorporated self-employment is much smaller than on men's within the first few years since childbirth. However, in subsequent years, women are much more likely to turn to unincorporated self-employment. For example, by the time their first child is 10 years old, the association between motherhood wage penalties and women's likelihood of unincorporated self-employment increase by a factor of 5. However, the association between wage penalties and men's likelihood of unincorporated self-employment increase more modestly by a factor of 3. Recall that our findings regarding unemployment show similar gendered patterns: women's likelihood of unincorporated self-employment increase at a much faster rate in subsequent years due to career setbacks. By following men and women for a long time period we can demonstrate how cumulative gender disadvantages evolve in the setting of self-employment.

Interfirm job mobility

The forth alternative mechanisms for how family policies impact men's and women's long-term self-employment concerns the effects of job mobility following childbirth. In addition to opportunities within one's current organization, we also proposed that migratory work histories will likely increase women's risk for self-employment (Kalleberg, 2000). Because organizations often use part-time workers for finite periods on an as-needed basis (Jonsson, 2011; Kalleberg, 2000; Kalleberg, 2003; Rosenfeld & Birkelund, 1995), women are likely to frequently enter and exit job positions and experience a greater level of work discontinuity in contexts where family policies support their part-time employment (Fernandez-Mateo, 2009; Jacobs, 1989). Accordingly, self-employment could serve as a temporary substitute for paid work (Gangl, 2006; MacLean, 2010; Shane, 2010). We examine this proposition in Table 6 which replicates the baseline model of Table 3 with two additional variables: 'Intrafirm Mobility since Childbirth' and ''Intrafirm Mobility * Log Child's Age'.

Results in Table 7 show that interfirm mobility since childbirth is negatively associated the likelihood of both types of entreprenuruship for both men and women. Past research suggests that moves across organizational boundaries are less advantages than those within organizations

(Barnett et al., 2000) and that frequent job switchers tends to earn less as entrepreneurs (Frederiksen et al., 2016). Whereas within-firm job mobility helps accumulate firm-specific human capital and facilitates promotions, inter-organizational mobility restricts employees to jobs that provide limited pay and learning opportunities (Weinberg, 2001)..

More importantly, we found a greater liability of interfirm mobility for women's self-employment. Figure 8.A. presents the effect of an additional interfirm move on men's and women's likelihood of unincorporated self-employment. Clearly, there is a growing gender gap in the increased likelihood of unincorporated self-employment caused by interfirm job mobility. Consistent with prior findings on women's cumulative disadvantages in career attainment, our results show that small disadvantages in women's career mobility, and their constraining effect on women's self-employment at early stages after childbirth, grow substantially larger over time.

DISCUSSION AND CONCLUSIONS

Drawing on a unique dataset from Sweden, the Longitudinal Integration Database for Health Insurance and Labor Market Studies (LISA), we investigated the conditions that mediate the effects of supportive family policies on gender inequality in entrepreneurship. Where most previous research infers the effect of family policies concerning work-family conflict from cross-sectional data, we investigate the intermediating conditions with regard to women's paid parental leave, work-skill attrition, and earnings capacity to uncover multiple explanatory mechanisms. This approach enabled us to investigate not only the mediating mechanism concerning work-family conflict, but also to address alternative mechanisms related to employment opportunities. By doing so, we evaluated a central premise behind the scholarship on family policies and gender inequality: family policies are a double-edged sword for women's paid employment and thus have paradoxical consequences for women's entrepreneurship.

Utilizing rich data on Swedish individuals' career histories and their life course over a timespan of 20 years, our central findings concern the paradoxical consequences of family

policies for women's participation rates in self-employment. We found that whereas mitigated work-family conflict lowers women's self-employment rate, diminished wage employment opportunities substantially increase women's self-employment rate. Because women's disadvantages in paid employment accumulate over time, the effects of family policies on women's entrepreneurship are time-variant, monotonically increasing over the life course of economically active women. Paradoxically, family policies documented to reduce women's work-family conflict may limit their earnings capacity in the long run. Taken together, these results suggest that the conclusion from previous research that supportive family policies reduce women's necessity-driven entrepreneurship by reconciling their work-family demands is incomplete: this work fails to recognize the alternative mechanism concerning women's employment opportunities in the labor market.

This finding has important implications for our theoretical understanding of the effects of family policies on entrepreneurship. If family policies in Scandinavian countries decisively reduce women's necessity-driven entrepreneurship, then other countries should enact or more vigorously enforce family policies to reduce gender inequality in entrepreneurship. Yet, if the existing family policies implemented in "role-model" countries actually fuel women's representation in low-growth businesses in the long run, important questions arise with regard to how to modify or revise these policies for desirable outcomes.

In addition, our results underscore the idea that family policies contribute to necessity-driven and growth-oriented entrepreneurship in different ways. Family policies that push women toward necessity-driven entrepreneurship simultaneously create more barriers to their entry into incorporated self-employment. These results bring to light the importance of gender stratification on wage employment for gender inequalities in entrepreneurship. Fundamentally, the unequal opportunities in wage jobs cause women's underrepresentation in positions that have access to financial and human resources (Bygren & Gähler, 2012), which in turn lead to their disadvantages in entrepreneurship. Our study illustrates how the gender system in a capitalistic welfare state

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links different forms of inequalities together, which then reinforce each other. An implication is that institutional changes targeted at one form of gender inequality must address their potential effects on other forms of gender inequalities.

Finally, we found that women are much more malleable than men to the influence of family policies in making important decisions with regard to work and family. Women not only take most of the paid parental leave, but they are also more likely to become unemployed and experience career cutbacks than their male counterparts when they have children. Correspondingly, we found that conditions that mediate the influence of family policies on work-family decisions have larger impacts on women's than men's self-employment, both unincorporated and incorporated. The skewed influence of family policies on women suggests that cultural beliefs that govern spousal relationships and the division of labor in the private domain may be the ultimate cause of gender inequalities in wage employment and entrepreneurship. If families respond to work-family conflicts primarily through women's adaptations, the stalled gender revolution may never be complete (England, 2010; Hochschild, 1989; Pedulla & Thébaud, 2015; Percheski, 2008).

CONTRIBUTIONS AND FUTURE RESEARCH

By linking gender inequality in self-employment with other gender stratification processes in the labor market, our study advances and enriches prior research in multiple areas. First, we extend theories of labor market attainment to an important but underexplored research area—self-employment. The premise central to our argument is that family policies are a double-edged sword for women's paid employment and, in turn, have paradoxical consequences for women's entrepreneurship. Scholars using cross-national data have highlighted the negative implications of family policies for women's paid employment, but their findings have not been sufficiently appreciated in research on family policies and self-employment. Whereas previous research often relies on work-family conflict as the only mediating condition that affects women's self-employment, our study teases apart two sets of competing mechanisms that affect

the relationships between family policies and self-employment: mitigating work-family conflict and diminishing employment opportunities. Resonating with Mandel and Semyonov's (2005) work on the paradoxical consequences of family policies for women's career attainment, we contribute to the literature by showing how the effects of family policies are not confined within wage employment but extend also to nonstandard employment.

Second, we advance theories that embed entrepreneurship in the process of career attainments to explain gender inequality in entrepreneurship. Although many scholars contend that research on entrepreneurship should be informed by the vast literature on organizations, there has been a distinct separation between the literature on employee entrepreneurship and the literature on gender inequality. Many researchers speculate that the entrepreneurial process may operate differently for men and women, yet simply control for gender without explicating the gender differences (e.g. Meitzen, 1986; Royalty, 1998; Sørensen, 2007; Viscusi, 1980). Others view women as a source of the heterogeneity that cannot be well explained by their theory, and thus decide to completely exclude women from their studies (e.g. Elfenbein et al., 2010; Özcan & Reichstein, 2009). Our study probes the intrictate relationships between paid employment opportunities and gender inequality in entrepreneurship. Our findings emphasize that women's disadvantages in self-employment are deeply rooted in organizational structures through which institutional pressures influence employees' entrepreneurial activities.

Third, our research provides evidence for the often suggested but empirically underexplored proposition that entrepreneurship serves as a social mechanism stratifying male and female entrepreneurs and reproducing gendered opportunity structures through the founding of new organizations (Loscocco & Bird, 2012; Loscocco & Smith-Hunter, 2004; Phillips, 2005; Yang & Aldrich, 2014). When necessity-driven entrepreneurship becomes a fallback option for women's career attainment, gender inequality in paid employment spills over to the domain of self-employment, creating additional career setbacks for women. Our analysis suggests that women, on average, have much shorter spells of self-employment than do their male counterparts.

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Such nonstandard employment experiences are less likely to generate valuable human capital for women's careers in the long run when they reenter wage employment. In addition to individual career attainment, gender inequality among the founders of new organizations has important implications for unequal opportunities for other men and women. Because women, in general, are less likely to found incorporated businesses, they will have fewer opportunities to influence the likelihood of hiring and promoting other women in organizations (Baron et al., 2007; Cohen & Broschak, 2013). To the extent that gender inequality is embedded in organizations since the founding stage, there is a risk that in-group bias or favoritism will perpetuate gender inequality in these new organizations (Gorman, 2005; Kanter, 1977).

Fourth, our research suggests new avenues for inquiry into the complex relationships between institutional constraints and gender stratification. Recent scholarly investigations have focused on how individuals adapt their spousal relationships to cope with work and family in response to gendered institutional constraints (Gerson, 2010; Williams, 2010), and their findings often suggest expanding family policies to help spousal couples construct egalitarian earner-caregiver relationships (Pedulla & Thébaud, 2015). Our research suggests another possibility: the core problem with regard to gender inequality may be the cultural beliefs that govern individuals' understandings of their gender roles and their configurations of spousal relationships. If gender beliefs in the private sphere remain intact, women, rather than men, will continue to make sacrifices or compromises when family responsibilities collide with work commitments. Against the backdrop of the stalled gender revolution in the family, expansive family policies may thus reinforce rather than diminish gender inequality. Our findings highlight the incommensurate difficulties that family policies face in ameliorating gender inequalities at work when corresponding changes have not yet happened within the family. Indeed, studies show that men have made only modest increases in housework and childcare, and more limited progress in endorsing egalitarian ideologies (Cotter et al., 2011; England, 2010). Our conclusions suggests

that rather than focusing on policies only at the state- or workforce-level, more attention should be devoted to creating egalitarian norms in the family domain.

Unlike previous work that emphasizes women's actions, our study highlights a new research direction that takes a two-gender approach to understanding spousal relationships and the possible progressive responses from men. A few studies have recently emerged in this new area. For example, Hook (2006) investigates the conditions under which men are more likely to engage in unpaid work at home, and Petersen et al. (2014) suggest that Norwegian family legislation has attempted to strengthen the bond between fathers and children, creating entirely new forms for fatherhood. They recommend policies to directly address internal adjustments and bargains in the family. Thébaud and Pedulla (Forthcoming) recognize men's lack of responsiveness to supportive family policies, and they investigate the conditions under which men are more likely to seek progressive relationships. Although research in this area is just emerging, it has great potential to provide opportunities for developing an in-depth and comprehensive understanding of how to make institutional changes across a multitude of social domains.

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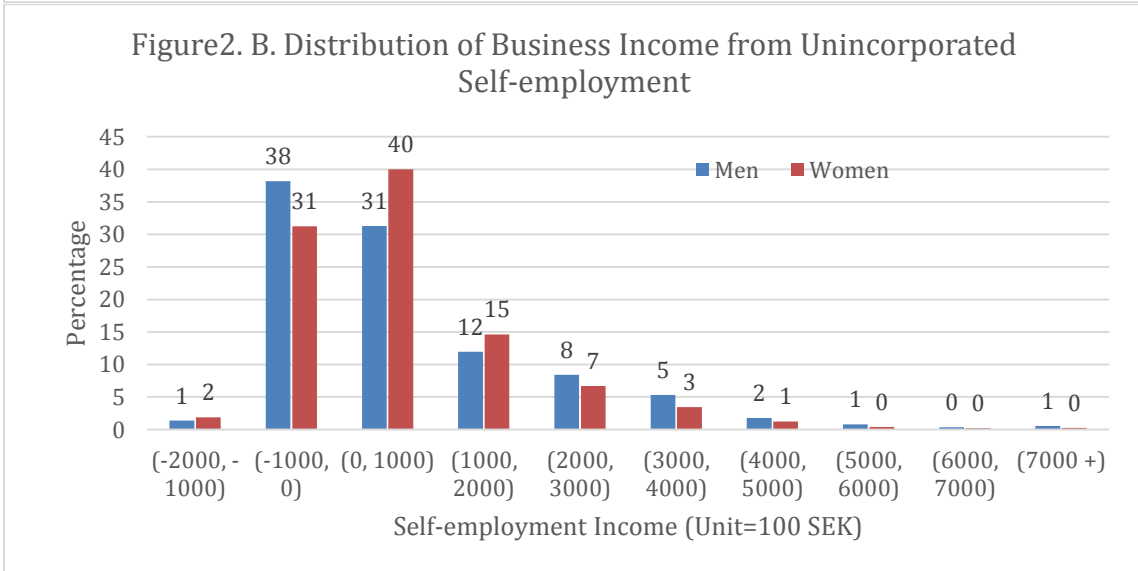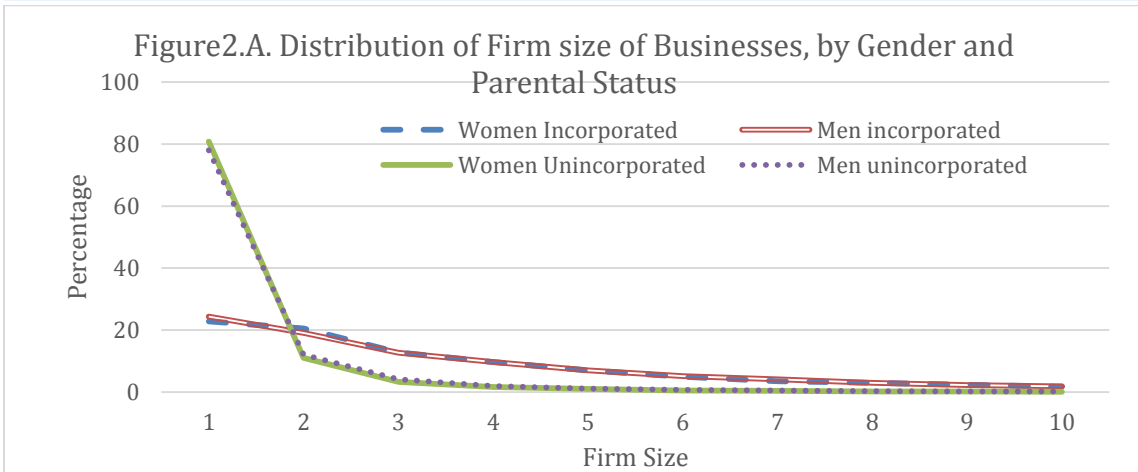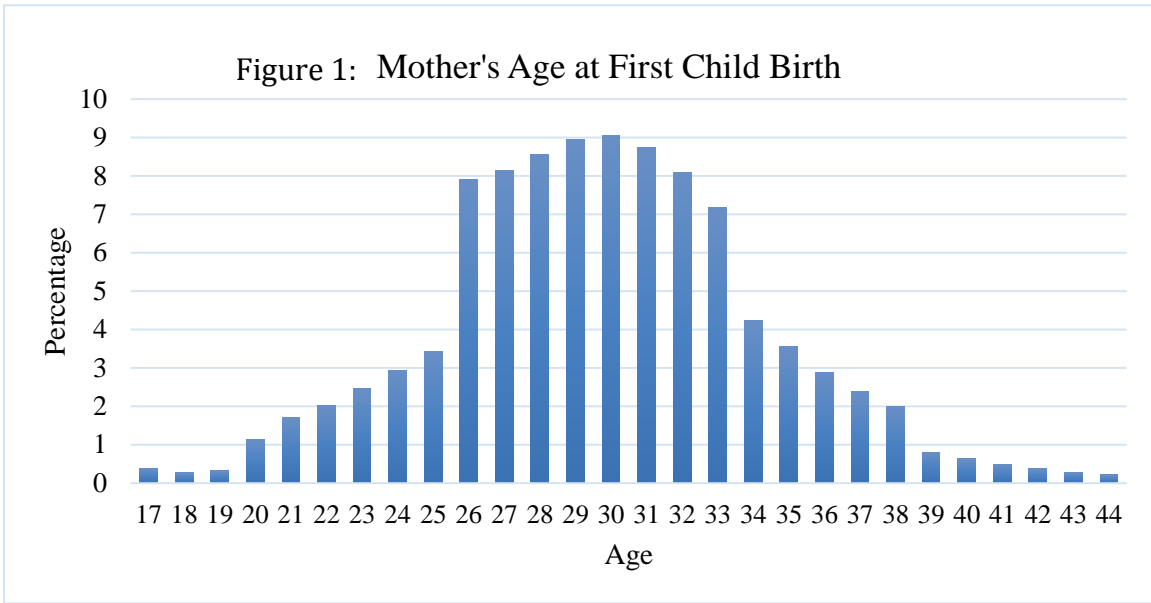
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Figure 1: Mother's Age at First Child Birth

Figure2.A. Distribution of Firm size of Businesses, by Gender and Parental Status

Figure2. B. Distribution of Business Income from Unincorporated Self-employment

Figure2. C. Distribution of Business Income from Incorporated Self-employment

Figure3.A. Days of Parental Leave

Figure3.B. Cumulative Years of Unemployment Since the Birth of First Child

Figure3.C. Average Wage Salaries By Parental Status
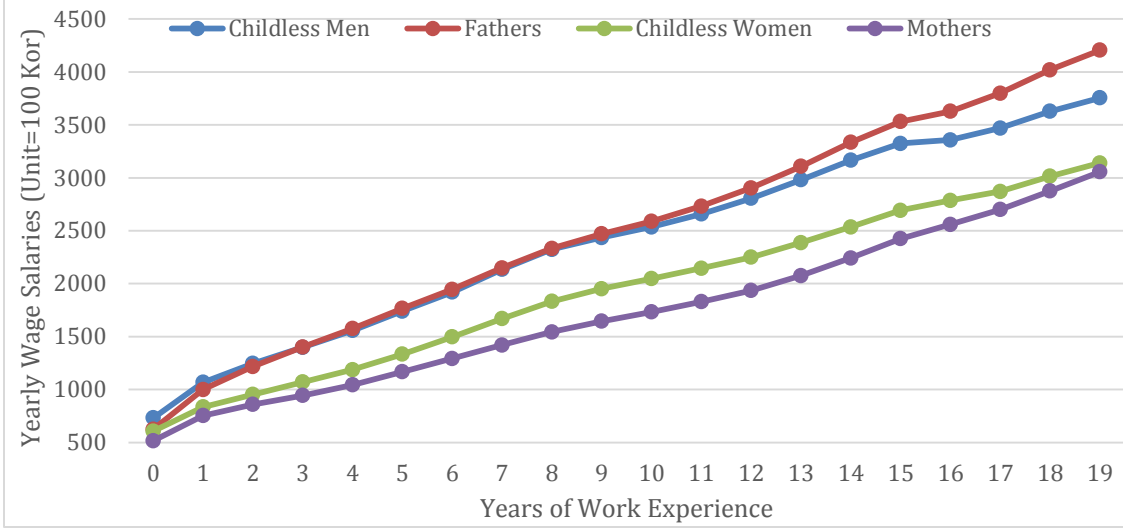
Figure 4. Men's and Women's Rates of Unincorporated and Incorporated Self-employment

Figure 5.A. Effects of Days of Parental Leave on Women's Unincorporated Self-employment

Figure 5.B. Effects of Days of Parental Leave on Women's Incorporated Self-employment

Figure 6.A The Time-varying Effect of Unemployment on Men and Women's Unincorporated Self-employment

Figure 6.B. The Time-varying Effect of Unemployment on Men and Women's Incorporated Self-employment

Figure 7.A Time-varying Effect of Wage Penalty on Men and Women's Unincorporated Self-employment

Figure 7.B. Time-varying Effect of Wage Penalty on Men and Women's Incorporated Self-employment

Figure 8.A Time-varying Effect of Intrafirm Mobility on Men and Women's Unincorporated Self-employment

Figure 8.B Time-varying Effect of Interfirm Mobility on Men and Women's Unincorporated Self-employment

Table 1. Men's and Woman's Self-employment (%)		
	men	women
Unincorporated Self-employment	59.53	73.91
Incorporated Self-employment	40.47	26.09
	Unincorporated	Incorporated
Home-based Business	71.08	24.26
	Unincorporated	
Home-based Business	Men	Women
	73.57	66.19
	Incorporated	
Home-based Business	Men	Women
	24.79	22.18

Table 2. Employees' Transition to Self-Employment (Individual-year Observations since Childbirth)

Variables	Model 1 (Women) Unincorporated Coeff.	P	Model 2 (Women) Incorporated Coeff.	P	Model 3 (Men) Unincorporated Coeff.	P	Model 4 (Men) Incorporated Coeff.	P
Log first child's age	0.223	***	-0.102	***	0.080	***	-0.128	***
	(0.016)		(0.030)		(0.012)		(0.019)	
Cohabiting	-0.024		-0.016		0.127	***	0.127	***
	(0.021)		(0.039)		(0.018)		(0.026)	
Married	0.275	***	0.572	***	0.239	***	0.228	***
	(0.018)		(0.033)		(0.016)		(0.023)	
Unemployment	1.016	***	-0.454	***	1.147	***	-0.275	***
	(0.045)		(0.100)		(0.035)		(0.070)	
No. Children in Household (Ref=0)								
1 Child	-0.146	***	-0.042		-0.007		0.011	
	(0.019)		(0.038)		(0.015)		(0.024)	
2 Children	-0.254	***	-0.072		0.019		0.151	***
	(0.020)		(0.039)		(0.017)		(0.025)	
3 Children	-0.136	***	0.068		0.087	***	0.142	***
	(0.024)		(0.046)		(0.021)		(0.030)	
Mother was Entrepreneur	0.127	***	0.147	***	0.079	***	0.142	***
	(0.017)		(0.030)		(0.014)		(0.018)	
Father was Entrepreneur	0.173	***	0.270	***	0.297	***	0.314	***
	(0.014)		(0.025)		(0.011)		(0.015)	
Spouse was entrepreneur	0.968	***	1.315	***	0.780	***	0.552	***
	(0.019)		(0.029)		(0.030)		(0.039)	
Average size of previous employers	-0.023	***	-0.062	***	-0.032	***	-0.085	***
	(0.004)		(0.008)		(0.003)		(0.004)	
Average age of previous employers	0.221	***	-0.012		0.237	***	-0.074	***
	(0.017)		(0.027)		(0.013)		(0.015)	
Age when having first child	0.033	***	-0.011	*	0.014	***	-0.015	***
	(0.002)		(0.004)		(0.001)		(0.002)	
Years of education	0.009	**	0.068	***	-0.036	***	0.071	***
	(0.003)		(0.005)		(0.002)		(0.003)	
Spouse's income	0.000	***	0.000	***	0.000	***	0.000	***
	(0.000)		(0.000)		(0.000)		(0.000)	
Log Establishment Size	-0.170	***	-0.318	***	-0.221	***	-0.404	***
	(0.013)		(0.020)		(0.010)		(0.013)	
Log Establishment Age	-0.001		-0.301	***	0.087	***	-0.306	***
	(0.017)		(0.023)		(0.013)		(0.013)	
Log No. of establishments	-0.073	***	-0.227	***	-0.090	***	-0.243	***
	(0.007)		(0.012)		(0.007)		(0.010)	
No. of Employees with startup	0.073	***	-0.026		0.071	***	-0.082	***
	(0.014)		(0.021)		(0.010)		(0.013)	
Average Age of Employees	0.009	***	0.027	***	0.023	***	0.040	***
	(0.001)		(0.001)		(0.000)		(0.000)	
Log Percentage of Women	0.003	***	0.006	***	-0.003	***	0.002	***
	(0.000)		(0.000)		(0.000)		(0.000)	
Average Salary of Employees	0.000	***	0.000	***	0.000	***	0.000	
	(0.000)		(0.000)		(0.000)		(0.000)	
Firm Shutdown(Yes=1)	0.726	***	0.303	***	0.715	***	0.270	***
	(0.033)		(0.053)		(0.021)		(0.029)	
Years of work experience	0.114	***	0.136	*	0.308	***	0.205	***
	(0.022)		(0.059)		(0.026)		(0.037)	
Observations	6,580,876		6,580,876		6,488,438		6,488,438	
-2 Log. Likelihood	307,716		82,395		46,3951		22,0797	

Note: Roust standard errors in parentheses. All models include fixed effects of industry, local labor market, public/private sector, and founding year of an establishment. *, P<0.05; **, P<0.01; ***, P<0.001. (Two-tailed tests).

Table 3. Effects of Parental Leave on Employees' Transition to Self-Employment (Obs. Since childbirth)

Variables	Model 1 (Women) Unincorporated Coeff.	P	Model 2 (Women) Incorporated Coeff.	P	Model 3(Men) Unincorporated Coeff.	P	Model 4 (Men) Incorporated Coeff.	P
Log first child's age	0.539	***	-0.126		0.258	***	-0.272	***
	(0.030)		(0.068)		(0.024)		(0.041)	
Cohabiting	0.035		-0.062		0.182	***	0.214	***
	(0.026)		(0.049)		(0.022)		(0.031)	
Married	0.307	***	0.550	***	0.281	***	0.324	***
	(0.023)		(0.044)		(0.021)		(0.030)	
Unemployment	1.113	***	-0.391	***	1.323	***	-0.163	*
No. Children in Household (Ref=0)	(0.055)		(0.117)		(0.044)		(0.081)	
1 Child	-0.041		-0.046		0.030		-0.023	
	(0.025)		(0.050)		(0.019)		(0.030)	
2 Children	-0.156	***	0.027		0.025		0.148	***
	(0.026)		(0.051)		(0.022)		(0.032)	
3 Children	-0.026		0.154	**	0.091	***	0.139	***
	(0.031)		(0.059)		(0.027)		(0.038)	
Days of Parental Leave Taken	**0.009**		**0.077**	***	**-0.042**	***	**-0.092**	***
	(0.009)		**(0.018)**		**(0.011)**		**(0.014)**	
Days of Parental Leave *Log first	**-0.015**	***	**-0.044**	***	**0.006**		**0.031**	***
	(0.004)		**(0.007)**		**(0.005)**		**(0.006)**	
Observations	4,082,363		4,082,363		3,676,778		3,676,778	
-2 Log. Likelihood	217,167		59,097		310,323		163,015	

Note: Roust standard errors in parentheses. All models include fixed effects of industry, local labor market, public/private sector, and establishment founding year and controls in prior models (Mother was Entrepreneur, Father was Entrepreneur, Spouse was entrepreneur, Average size of previous employers, Average age of previous employers, Age when having first child, Years of education, Spouse's income, Log Establishment Size, Log Establishment Age, Log No. of establishments, No. of Employees with startup experience, Average Age of Employees, Log Percentage of Women, Average Salary of Employees, Firm Shutdown(Yes=1), Years of work experience). *, $P<0.05$; **, $P<0.01$; ***, $P<0.001$. (Two-tailed).

Table 4. Effects of Unemployment on Employees' Transition to Self-Employment (Obs. since Childbirth)

Variables	Model 1 (Women) Unincorporated Coeff. P		Model 2 (Women) Incorporated Coeff. P		Model 3(Men) Unincorporated Coeff. P		Model 4 (Men) Incorporated Coeff. P	
Log first child's age	0.393	***	-0.287	***	0.252	***	-0.215	***
	(0.029)		(0.061)		(0.024)		(0.040)	
Cohabiting	-0.025		-0.088		0.143	***	0.167	***
	(0.023)		(0.045)		(0.021)		(0.031)	
Married	0.246	***	0.511	***	0.247	***	0.282	***
	(0.021)		(0.039)		(0.020)		(0.029)	
Unemployment	0.596	***	-0.300		1.196	***	-0.298	*
No.Children in Household(Ref=0)	(0.079)		(0.176)		(0.065)		(0.143)	
1 Child	-0.066	**	-0.077		0.040	*	-0.011	
	(0.025)		(0.049)		(0.019)		(0.030)	
2 Children	-0.186	***	-0.029		0.043		0.172	***
	(0.026)		(0.050)		(0.022)		(0.031)	
3 Children	-0.058		0.104		0.119	***	0.170	***
	(0.031)		(0.059)		(0.027)		(0.038)	
Unemployment*Log first child's age	**0.266**	***	**-0.041**		**0.069**	**	**0.065**	
	(0.029)		**(0.066)**		**(0.025)**		**(0.055)**	
Observations	4,082,363		4,082,363		3,676,778		3,676,778	
-2 Log. Likelihood	217,139		59,137		310,395		16,3074	

Note: Roust standard errors in parentheses. All models include fixed effects of industry, local labor market, public/private sector, and establishment founding year and controls in prior models (Mother was Entrepreneur, Father was Entrepreneur, Spouse was entrepreneur, Average size of previous employers, Average age of previous employers, Age when having first child, Years of education, Spouse's income, Log Establishment Size, Log Establishment Age, Log No. of establishments, No. of Employees with startup experience, Average Age of Employees, Log Percentage of Women, Average Salary of Employees, Firm Shutdown(Yes=1), Years of work experience). *, $P<0.05$; **, $P<0.01$; ***, $P<0.001$. (Two-tailed).

Table 5. Effects of Wage Penalty on Employees' Transition to Self-Employment (Obs. since Childbirth)

Variables	Model 1 (Women) Unincorporated Coeff. P		Model 2 (Women) Incorporated Coeff. P		Model 3(Men) Unincorporated Coeff. P		Model 4 (Men) Incorporated Coeff. P	
Log first child's age	0.477	***	-0.356	***	0.381	***	-0.175	***
	(0.030)		(0.068)		(0.025)		(0.042)	
Cohabiting	-0.009		-0.082		0.156	***	0.173	***
	(0.024)		(0.045)		(0.021)		(0.031)	
Married	0.265	***	0.515	***	0.260	***	0.288	***
	(0.021)		(0.039)		(0.020)		(0.029)	
Unemployment	1.065	***	-0.368	**	1.237	***	-0.251	**
No.Children in Household(Ref=0)	(0.055)		(0.117)		(0.045)		(0.082)	
1 Child	-0.060	*	-0.075		0.040	*	-0.014	
	(0.025)		(0.049)		(0.019)		(0.030)	
2 Children	-0.223	***	-0.027		0.034		0.167	***
	(0.026)		(0.050)		(0.022)		(0.031)	
3 Children	-0.082	**	0.106		0.109	***	0.166	***
	(0.031)		(0.059)		(0.027)		(0.038)	
Wage Penalty since first child	**-0.211**	***	**-0.198**		**0.461**	***	**0.187**	**
	(0.057)		**(0.106)**		**(0.047)**		**(0.071)**	
Wage Penalty*Log first child' age	**0.265**	***	**0.070**		**-0.043**		**0.048**	
	(0.028)		**(0.054)**		**(0.023)**		**(0.038)**	
Observations	4,082,363		4,082,363		3,676,778		3,676,778	
-2 Log. Likelihood	216,852		59,132		309,871		162,964	

Note: Roust standard errors in parentheses. All models include fixed effects of industry, local labor market, public/private sector, and establishment founding year and controls in prior models (Mother was Entrepreneur, Father was Entrepreneur, Spouse was entrepreneur, Average size of previous employers, Average age of previous employers, Age when having first child, Years of education, Spouse's income, Log Establishment Size, Log Establishment Age, Log No. of establishments, No. of Employees with startup experience, Average Age of Employees, Log Percentage of Women, Average Salary of Employees, Firm Shutdown(Yes=1), Years of work experience). *, P<0.05; **, P<0.01; ***, P<0.001. (Two-tailed).

Table 6. Effects of Interfirm Mobility on Employees' Transition to Self-Employment (Obs. since birth)

Variables	Model 1 (Women) Unincorporated Coeff. P		Model 2 (Women) Incorporated Coeff. P		Model 3(Men) Unincorporated Coeff. P		Model 4 (Men) Incorporated Coeff. P	
Log first child's age	0.465	***	-0.176	**	0.297	***	0.013	
	(0.026)		(0.058)		(0.022)		(0.039)	
Cohabiting	-0.043		-0.115	*	0.112	***	0.142	***
	(0.023)		(0.045)		(0.021)		(0.031)	
Married	0.218	***	0.475	***	0.206	***	0.250	***
	(0.021)		(0.039)		(0.020)		(0.030)	
Unemployment	1.124	***	-0.278	*	1.351	***	0.024	
No.Children in Household(Ref=0)	(0.055)		(0.116)		(0.044)		(0.080)	
1 Child	-0.099	***	-0.126	*	0.020		-0.041	
	(0.025)		(0.050)		(0.019)		(0.031)	
2 Children	-0.175	***	-0.048		0.062	**	0.153	***
	(0.026)		(0.050)		(0.022)		(0.032)	
3 Children	-0.045		0.084		0.133	***	0.152	***
	(0.031)		(0.059)		(0.027)		(0.038)	
Intrafirm Mobility since Childbirth	**-0.550**	***	**-0.638**	***	**-0.533**	***	**-0.778**	***
	(0.026)		**(0.049)**		**(0.020)**		**(0.031)**	
Intrafirm Mobility *Log first child's age	**0.210**	***	**0.207**	***	**0.193**	***	**0.245**	***
	(0.009)		**(0.018)**		**(0.007)**		**(0.011)**	
Observations	4,082,363		4,082,363		3,676,778		3,676,778	
-2 Log. Likelihood	216,766		58,879		309,672		161,933	

Note: Roust standard errors in parentheses. All models include fixed effects of industry, local labor market, public/private sector, and establishment founding year and controls in prior models (Mother was Entrepreneur, Father was Entrepreneur, Spouse was entrepreneur, Average size of previous employers, Average age of previous employers, Age when having first child, Years of education, Spouse's income, Log Establishment Size, Log Establishment Age, Log No. of establishments, No. of Employees with startup experience, Average Age of Employees, Log Percentage of Women, Average Salary of Employees, Firm Shutdown(Yes=1), Years of work experience). *, P<0.05; **, P<0.01; ***, P<0.001. (Two-tailed).