Family Friendly Firms?
Worker Mobility, Firm Attributes and Wage Trajectories of Women and Men[*]

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Preliminary – Please do not cite

April 30, 2016

Abstract

We consider worker mobility as a potential channel for the differential wage trajectories of women and men after the arrival of the first child using rich, longitudinal matched worker-firm data from Sweden. Our findings suggest significant differences in the type of job-switches of male and female workers. In connection with childbearing, women switch to firms with fewer advancement opportunities and lower profitability, as indicated by a wide range of non-wage establishment level attributes - such as the hierarchical structure of the firm, the degree of specialization, co-worker skill-level and firm value added. Women also move to firms with a larger share of female workers and workers with young children, suggesting that some jobs might be more easily combined with parenthood. We construct an index of the family friendliness of jobs, and analyze the importance of this non-wage characteristic for the occupational choices of men and women, as well as its impacts on the wages of men and women. We find that family friendliness of jobs matter for the occupational choices of mothers, but not for fathers.

Keywords: Career interruptions, wages
JEL-codes: JEL-codes: JYY, XX.

1 Introduction

Despite the gender convergence in labor force participation, educational level, and in the choice of professions observed in the last few decades, significant gender wage gaps persist in all industrialized countries. A large economics literature suggests that the earnings and wage growth of women are negatively affected by childbearing (see e.g. Angrist and Evans, 1998; Bronars and Grogger, 1994; Fitzenberger *et al.*, 2013), and that male and female earnings diverge at the onset of parenthood (Angelov *et al.*, 2013; Kleven *et al.*, 2015; Bertrand *et al.*, 2010; Goldin, 2014).

In trying to explain the source of the wage penalty to mothers, much attention has been devoted to the role of employer discrimination (Becker, 1971) and foregone investments in human capital (Mincer and Polachek, 1974). However, a recent literature explores the role of sorting across jobs in explaining the gender wage gap, where women are less likely to transition into high-paying jobs compared to men (Loprest, 1992; Hospido *et al.*, 2009; Del Bono and Vuri, 2011; Card *et al.*, 2015). A related literature suggests that job amenities – in particular workplace flexibility – might explain differences in the occupational career choices of men and women (Goldin and Katz, 2011, 2016; Goldin, 2014), and of women with and without children (Adda *et al.*, 2015; Felfe, 2012b,a).

This paper considers the role that the attributes of *firms* play in accounting for the mobility of women and men around the onset of parenthood and for gender differences in wages. We do so for at least three distinct, but related, reasons. First, recent studies by Goldin and co-authors (Goldin, 2014; Goldin and Katz, 2011, 2016; Bertrand *et al.*, 2010) have focused on the role of "workplace flexibility" or the "family-friendliness" of workplace amenities, as playing a large role in women being more or less successful (in terms of wages) in different occupations. Much of this work (see also Felfe (2012b,a) has focused on differences across occupations in the intensity and flexibility of hours of work as a (dis)amenity of jobs. But the jobs in which women work are imbedded in firms or establishments, where the latter may employ workers from a variety of different occupations.

Second, there are a much wider array of attributes of jobs than the intensity and flexibility of hours of work that may be valued differently by men and women and by parents and non-parents, including the structure of the management of firms, the skill and gender composition of a firm's workforce, the proximity of the workplace to workers' home, etc.

Finally, our interest in the role of firms is motivated by the findings of Abowd *et al.* (1999) with respect to the existence of firm-level premia in wages and by the recent work of Card *et al.* (2015) who demonstrate that firm-level bargaining and sorting play have an important impact on the gender wage gap.

In what follows, we examine the mobility of men and women across firms as they, themselves,

move into parenthood. We index firms by their "family friendliness," where the latter is a function of a large set of firm-level characteristics that seem to differentially attract men and women based on their parenthood status. As in Goldin (2014); Goldin and Katz (2011, 2016), we examine the effect of firm family friendliness on the gender gap between men and women and parents and non-parents, reflecting the view that wages differences by the family friendliness is a compensating (or equalizing) differential (Rosen, 1986; Brown, 1980) equilibrium market valuation of this amalgam of job characteristics. But, consistent with recent findings by Bonhomme and Jolivet (2009) and Taber and Vejlin (2015) workers' valuations of amenities like the family friendliness of firms may not be completely reflected in differences in wages, possibly because of search frictions or institutional features of labor markets. Accordingly, we measure workers' preferences for the family friendliness of firms separately from their preferences over wages and allow these preferences to differ by gender and parenthood status. We use data on both wages and worker transitions across firms to separate out these preferences over family friendliness from the effects on wages.

To address the role of firms in accounting for gender and parenthood differences in wages and wage growth, we construct a matched worker-firm panel data set by combining several Swedish administrative registers covering the entire Swedish population. We follow male and female workers from the start of their labor market career up to 10 years after labor market entry. In each year, our data includes demographic and background characteristics of individuals, fertility status, labor income (from tax records), wage rates, and occupations. The data also includes a wide range of establishment level characteristics, such as industry affiliation, establishment size, occupational composition, and a large set of variables measuring the skill-composition and organizational structure, constructed by characterizing the entire workforce at the establishment.

As first noted in Hwang *et al.* (1992), the estimation of compensating differentials of non-wage characteristics in wage equations is potentially subject to endogeneity bias, to the extent that unobserved components in individuals' payoff functions of job choices, and individuals' unobserved productivity factors in wage equations are correlated. For similar reasons, the estimation of parameters that characterize the payoffs to wages and family friendliness are also subject to such biases. Consequently, we develop a model of childbearing and job choices, and layout several strategies for identifying the parameters of the model; which involve making explicit assumptions about the unobserved elements of the models; and strategies that exploit the availability of instrumental variables for some of the model components.

The analysis consists of three parts. First, we use the richness of our data to descriptively explore the transitions of workers' wage and non-wage attributes around the onset of parenthood using an

event-study approach. This analysis suggest important differences in the type of job-switches of male and female workers. With the arrival of the first child, women switch to firms with fewer advancement opportunities and lower profitability, as indicated by a wide range of firm attributes - such as the hierarchical structure of the firm, the degree of specialization in terms of occupational range, wage dispersion and firm value added per worker. No such patterns are observed for male workers. After entering parenthood, women also move to firms where the workforce is consists of a larger share of female workers, and a larger share of females with young children, suggesting that some jobs - or some workplaces - have features that make them more easily combined with family responsibilities, i.e., features that are more family friendly. Using our constructed index of family friendliness, our descriptive analysis shows that the likelihood of working at a (more) family friendly firm is indeed increased for women after the onset of parenthood, but not for men. We also show that individual wages are negatively correlated to the family friendliness of the firm, but less so for women, and that the negative correlation between the presence of children and wages is attributed for by being a female worker in a family friendly firm. Finally, using a conditional logit model of occupation choice, our descriptive analysis shows that the family friendliness of the sector has no impact on the occupational choice of male workers when they are parents, while it is of significant importance for mothers' occupational choices.

In the second and third parts, we analyze the impact of family friendliness on wages, and the effect that wages and family friendliness have for workers' mobility across firms.

The remainder of the paper is organized as follows. Section 2 describes the data and the analysis sample, and provides summary statistics of male and female workers' characteristics and the characteristics of their jobs at labor market entry. In section 3 we present graphical descriptive results from an event-time analysis of how wages and non-wage attributes evolve by time since first birth for male and female workers. Therein we also discuss how the family friendliness index is constructed, and provide descriptive evidence of the change in the probability of being employed at a family friendly firm with respect to time since first birth, and how the family friendliness of the firm correlates with individuals' wages. Section 4 presents a model of childbearing and job choices, and in Section 6 we describe the estimation and identification strategies employed. Section 7 presents the main results, and the last section concludes the paper.

2 Data

2.1 Data Sources

The analysis is based on a matched employer-employee data set created by combining several Swedish administrative registers maintained by Statistics Sweden. We use the multi-generational register, which links all children to their biological parents, and provides information on the birth year, birth month, and birth parity of all children born before 2008, for the entire Swedish population. To these data we match individual longitudinal information on demographic and background characteristics - such as age, sex, region of residence, educational attainment, and country of origin - from the LOUISE register. LOUISE also includes annual labor income for each individual, with zero-income reported for periods of non-work, drawn from tax registers. Using unique individual identifiers, we match this information to a linked employer-employee register that contains all employed and self-employed individuals in Sweden, with unique identifiers for their employers (firms) and workplaces. A person can have multiple employment spells for the same firm in a year, and more than one employer in the same year. To obtain one person-plant observation per year, we sum the income observations for the same employer per person-year, and retain the employer at which the worker earned their main income. In the majority of the cases, this implies that we retain one observation per person-workplace year, which is our unit of analysis. For the very few cases of internal movers within a year, i.e., for individuals who have several workplaces within a firm and year, we keep the workplace where the individual earns their main income. Thus, our sample identifiers internal and inter-firm movers across years, but not within-year intra-firm mobility.

For each person-plant-year pair, we then match information on wage rates and occupational codes from the Wage Structure Statistics, collected by the Swedish National Mediation Office. The Wage Structure Statistics is an annual survey of establishments that collects information on contracted working hours (reported as percent of full-time), occupation, and full-time equivalent monthly wage rates for each employee that worked at least one hour during the measuring month. The occupational classification standard, SSYK, is a four-level hierarchical scheme that is based on the International Standard Classification of Occupations (ISCO), with some adaptations to the Swedish labor market. We use the first three digits of the SSYK to identify a person's occupational category. Using the first digit of the SSYK variable, we also define the skill-level of occupations. The skill requirements of the occupations range between 1 and 4, and correspond to the ISCED:s categorization, where occupations with level 1 require skills comparable to those attained with only 5 years of schooling, and level 4 occupations require skills comparable to those attained from college education

(although the skill need not be attained through formal education).

All firms, establishments, and organizations within the public sector (government, county council, and municipality) are covered in the Wage Structure Statistics, whereas a random sample of private sector employers are included: all private sector firms with 500 employees or more are covered, while a random sample is drawn on firms with fewer than 500 employees. The sampling is stratified based on a cross-classification of industry and establishment size, with the end result covering around 50 percent of all private sector workers in Sweden.

In terms of workplace characteristics, the linked employer-employee data set includes industry classification (NACE), establishment size, and establishment location (municipality). Moreover, we exploit the richness of our data to construct a wide range of workplace attributes. Specifically, we characterize the workforce of individuals' establishment (excluding the focal worker's characteristics) using data on *all* individuals employed at their workplace, with the aid of the matched employer-employee data set combined with demographic information from LOUISE, and from the wage- and occupation information from the Wage Structure Statistics. This allows us to measure e.g., the share of workers with a managerial position, the skill- and gender composition, and the occupational diversity at each workplace.

For a sub-sample of firms in the manufacturing sector, our data includes information on value added per worker (both at the firm and establishment level). Finally, for each workplace and individual, we match geographical information in the form of coordinates for the central point in the Small Area for Market Statistics (SAMS) regions in which workplaces (individuals) are located (residing). Using these coordinates we construct kilometer distance measures between a person's residence and workplace location.

The employer-employee, LOUISE, Wage, and geographical registers cover the time period 1985 through 2007. However, occupational classification is only available from 1996 onwards.

2.2 Analysis Sample and Summary Statistics

Because our interest lies in wage growth and career progression, we focus on individuals for whom we observe the year of labor market entry, entry wages, and first occupation.[1] All data sources described above are left-truncated at 1985, except for the occupational classification standard, which starts in 1996. Therefore, we focus our analysis on individuals who entered the labor market in 1996 or later. We further restrict the sample to individuals whose first child was born *after* entering the labor market. Thus, all individuals in our sample enters the labor market without children, and

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[1]We define labor market entry as the first job after completing the highest attained level of education, that lasted at least four months, and yielded earnings exceeding three times the 10th percentile of the full wage distribution.

subsequently becomes parents at some point during the observation period.

Table 1 shows descriptive statistics separately for the male and female workers in our study sample, measured in the year of their labor market entrance. Comparisons between columns (1) and (2) show that female workers are slightly younger than male workers when they enter the labor market. The age difference might be attributed to women finding a first job somewhat faster compared to men, as shown by the average number of years between the completion of highest attained education and finding a first job. Consistent with e.g., Bertrand *et al.* (2010), wages of male and female workers in our sample are relatively similar at the onset of the career; with a raw wage gap of 6 percent. Working hours are somewhat lower for women, who work on average 85 percent of full-time compared to 93 percent for male workers. Despite a relatively small gender wage gap, there are large gender disparities in the types of jobs held by men and women at the onset of the career. Most notable is the gender difference with respect to sector of employment: around 72 percent of women start their careers in the public sector (county council, municipality) or government sectors, with the remaining 28 percent working in the private sector. For men, the corresponding numbers are 42 percent in the public sector, and the remaining share in the private sector.

[Table 1 about here]

In Table 2 we take a closer look at the job attributes of male and female workers at the onset of the career. The results show that the establishment at which the typical female worker is employed is characterized by a lower average wage, lower wage dispersion, and shorter working hours compared to the typical male's workplace. The difference in the share of female employees at men's and women's workplaces is striking, with roughly 70 percent of a woman's co-workers being female compared to 43 percent for men. Thus, there is significant gender segregation across workplaces. Moreover, women's workplaces seem to exhibit a flatter organizational structure, as the share of employees with a managerial position is lower at the typical female's workplace. There is also a somewhat lower occupational diversity at the workplaces of women, measured as the number of distinct occupational titles. However, there is no differences in the skill composition across men's and women's workplaces.

[Table 2 about here]

Previous evidence on gender wage differentials show that wages are rather similar for men and women at the start of their labor market careers, but that they soon start to diverge (see e.g. Bertrand

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et al., 2010; Goldin, 2014) and that the divergence in wages can to a large extent be attributed to childbearing (Angelov *et al.*, 2013). The descriptive evidence provided in Table 1 and Table 2 suggests that while male and female wages do not differ to a large extent at the onset of the career, the jobs of men and women do differ with respect to several important non-wage attributes. In the next section, we take a closer look at how wages and non-wage attributes transition over the career, in particular with respect to time since first birth.

3   Parenthood and Job Attributes: A Descriptive Overview

To provide a background to our analysis of fertility and job choices, this section provides a descriptive overview of the patterns of potential job mobility among male and female workers before and after the birth of their first child. Figure A.1 shows the distribution of the number of workplaces at which male and female workers, respectively, were employed over a time period spanning up to 15 years. The rate of job mobility is strikingly similar for men and women. Consequently, gender differences in the rate of job mobility is not likely to explain potential gender differences in wage growth. However, there may be differences in the returns to job mobility if, for example, women are less likely to move to higher paying firms.

We explore whether male and female workers' mobility differs with respect to the type of job-switches, as inferred from a wide range of job attributes of workers, and how they evolve with time since first birth. To this end, we employ an event-study approach, similar to that by Kleven *et al.* (2015). Denote the outcome variable for individual i in calendar year j, in period t since first birth - where $t = 0$ denotes the birth year of the first child. We estimate the following regression equation:

$$Y_{ijt} = \alpha_0 + \sum_{t=-5}^{10} \alpha_t T_{it} + \sum_k Age^k{}_{ij} + \sum_j \alpha_j Year_j + \epsilon_{ijt} \qquad (1)$$

where the T_{it}:s are indicator variables for years since first birth, with $t = -5, ... - 2, 0, 1, ..., 10$, i.e.,$t = -1$ is used as the reference year. α_t are thus the coefficients of interest and measure the outcome compared to the year before the first child is born.[2] We estimate equation (1) for male and female workers separately on a range of outcome variables.

We study how male and female workers' career progression evolves after becoming parents, compared to the year before first birth in terms of wage rates, contracted hours of work, the skill-level of their occupation, and the share of co-workers with a higher skill-level than themselves. The latter measure reflects if and how individuals fall behind their co-workers in terms of career progression af-

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[2]The coefficients are then divided by the predicted outcome conditional on age and calendar year in order to obtain percentage effects.

ter becoming parents. We also study transitions in terms of the gender- and skill composition of the workforce at individuals' establishments, the sector of employment, commuting distance, average co-worker wages, workplace value added per worker, as well as transitions in measures that reflect the organizational structure of the workplace. Specifically, we analyze how the share of co-workers with managerial positions, the range of occupational titles, and the share of co-workers with the same occupation as the focal workers (specialization) evolves by time since first birth.

Since almost all women are on parental leave during the year of childbirth[3], we have very few observations on the variables derived from the wage structure register in the year of childbirth for women. Moreover, those that are present at the workplace likely comprises a select group of mothers.[4] To avoid this source of selectivity, we impute missing information in the year of childbirth using the preceding year's values of the workplace attributes, and own wages, conditional on being employed in the same workplace in the two adjacent years. We perform this imputation for women only, since very few fathers are absent from the workplace for child rearing reasons in the year of childbirth.

Figure 1 depicts the coefficients on the T_{it}:s for individual wages, contracted working hours (percent of full-time) and occupational progression. Focusing first on wages, there is no gender difference in the trend of average wage rates before the first child is born, but immediately after first birth women's wages fall behind males' wages (which do not change after having their first child). The gender gap in wages increases by time since birth; 9 years after the first child is born, women have approximately 12 percent lower wages compared to the year before they gave birth to their first child. Panel (B) shows the corresponding results for contracted working hours, and show that women resort to part-time work after the first child is born, whereas no change is found for men. Panel (C) shows that, before first birth, the average skill-level of men's and women's occupations are parallel, but start to diverge in the second year after birth, with women's skill progression falling behind men's to an increasingly larger extent over time. Finally, panel (D) shows that women also fall behind their co-workers in terms of skills; the share of co-workers that hold occupations with a higher skill requirement than the focal worker increases for women, whereas no changes are found for men. The latter pattern could either be due to women falling behind their co-workers, or because they move to firms with a different workforce skill composition, or both. Taken together, the results presented in Figure 1 indicates that childbearing has very different impacts on the careers of male and female

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[3]All parents in Sweden are entitled to 480 days of governmentally paid parental leave with job protection, and nearly all mothers take-up parental leave benefits.

[4]Recall that the Wage Structure Statistics only covers workers with at least one hour of work during the survey month, so that wage observations for individuals on e.g., parental leave are censored. However, the matched employer-employee data set includes all individuals with an employment, allowing us to identify the workplaces of those that are absent from work during the survey month of the Wage Structure Statistics.

workers, with an apparent "mommy-track" consistent with evidence from previous studies. In the following, we study potential components of this mommy-track by studying the transitions of job attributes of male and female workers with respect to first birth to gain insight into whether the type of job-switches differs between men and women, which may be able to explain the divergence in career progression after the arrival of the first child.

Figure 2 shows the estimated change in the gender composition at men's and women's workplaces; the probability of working in the public sector; and the commuting distance. Panel (A) shows that - for women - the share of co-workers that are female increases significantly after first birth, but the there is an increasing trend already before the first child is born. Moreover, panel (B) shows that the same pattern holds true for the share of co-workers that are women with children younger than eight years old. Also this variable exhibits an increasing trend before first birth, but at a higher rate post-first birth. For male workers, the share of female co-workers and female co-workers with young children decreases after the arrival of the first child. Women are also more likely to leave the private sector after first birth (panel (C)), whereas the opposite pattern is observed for men. Finally, panel (D) shows a stark decrease in the commuting distance for women immediately after first birth, measured as the kilometer distance between the (central points) of the Small Area for Market Statistics (SAMS) in which the home and workplace are located. This could be driven by women switching workplace to one that is closer to the home, or that they move their home closer to the workplace. The results presented in Figure 2 suggest that workplace mobility among women is strongly related to family reasons.

While the results in Figure 2 suggest that women change workplaces for family reasons, as indicated by the decreased commuting distance and the increasing share of female co-workers with young children, we don't know whether the post-birth jobs differ in other respects. Are there fewer opportunities for advancement within firms that individuals move to after becoming parents, or is the work performed of a less technical and complicated nature such that they have lower skill requirements? In the next two figures we attempt to shed some light on these questions by performing the event-study analysis on outcomes that reflect organizational structure and the overall skill-level of the workforce. Figure 3, panel (A) shows that women seem to move to workplaces in which a smaller share of co-workers hold managerial positions. Women also move to workplaces with a smaller range of occupational titles (panel B), and where a larger fraction of their co-workers hold the same occupational title as themselves (3-digit occupational code, panel C). Moreover, as shown in panel (D), also average co-worker wages diverge between men and women, with no gender differences in the pre-birth trends. Hence, women appear to move to flatter and more specialized organi-

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zations, and with lower co-worker wages. Figure 4 shows that also the skill-level is lower in women's post-birth workplaces: the share of co-workers with professional and associate professional occupation decreases compared to men, while the share of co-workers with intermediate- or low-skilled occupations increases. Finally, Figure 5 also suggest that the job-switches for women after first birth entails switching to firms with lower value added per worker.

Taken together, our descriptive evidence shows that both the wage and non-wage attributes of male and female workers transition into significantly different paths after the arrival of the first child. The fact that mothers appear to work in firms with a higher share of female workers with young children compared to men, and compared to before they give birth, suggests that some jobs - or some workplaces - have features that make them more easily combined with family responsibilities, i.e., features that are more family friendly. Recent work by e.g. Goldin and Katz (2011); Goldin (2014) stresses the importance of temporal flexibility in particular, but also notes that flexibility - and thus family friendliness of workplaces - is a concept that incorporates several dimensions of how the work is structured. Thus, we need a broader measure of family friendliness that capture the different aspects of jobs that make them more easily combined with family responsibilities in a parsimonious way. In the following section, we therefore develop an index of family friendliness of establishments, in essence by comparing the non-wage characteristics of firms in which people with and without children work.

[Figure 1-Figure 5 about here]

3.1   Index of Family Friendliness

In general, jobs differ with respect to the wages they pay and the rate at which they grow with job tenure. They also differ with respect to other non-wage characteristics, including how gender-segregated and "hierarchical" they are and/or the nature of the skill-distribution within the firm and the dispersion of wages within the firm. Furthermore, as documented in Section 3, the firms that women with children are in tend to differ from the firms in which childless women and men work. Following Goldin (2014), we wish to characterize the extent to which a particular firm is "family friendly," contrasting the non-wage characteristics of firms in which men and women with children work versus those in which childless individuals work. We construct our family friendliness index as follows. First, let C_{itf_m} be an indicator of whether worker i who works in firm f_m has at least one child as of age t and Z_{1tf_m} denote a vector of characteristics of firm f_m, which include such measures as share of female workers, share of female workers with young children, share of workers with a

high school and college degree, firm size, and sector (private, government or municipal). Then using data on the full Swedish population of workers, we estimate the following logistic regression:

$$Pr(C_{itf_m} = 1|Z_{1tf_m}) = \frac{1}{1 + e^{\theta_1 Z_{1tf_m}}} \qquad (2)$$

Then, retrieving the estimated coefficients from (2), $\hat{\theta}_1$, we define our index of family friendliness for f_m with non-wage characteristics, Z_{1tf_m}, to be:

$$FF^*_{tf_m} \equiv \frac{1}{1 + e^{\hat{\theta}_1 Z_{1tf_m}}} \qquad (3)$$

Then the average FF^* for sector m is average value of the $FF^*_{tf_m}$s, $E(FF^*_{tf_m})$, taken over all firms in sector m.

Figure A.2 shows the empirical cumulative distribution function of the family friendly index FF^*. To assess whether our classification strategy generates separation in firm attributes consistent with the patterns observed in our descriptive overview, we define a firm to be family friendly if they have an index score higher than 0.7, which results in 28 percent of the firms in our sample being classified as family friendly. We then estimate differences in mean characteristics between family friendly and non-family friendly firms, as well as the change in the probability of being employed at a family friendly firm by time since first birth, for male and female workers separately. Figure 6 shows the estimated differences in attributes between firms classified as family friendly and not-family friendly, and shows that the formers are more likely to be located in the municipal sector, have a higher share of female co-workers, lower average wages and wage dispersion, and a higher share of female workers with young children.[5] Interestingly, women's average working hours is higher in firms that are more family friendly, whereas male's seem to work fewer hours in more family friendly firms. Hence, our constructed index of family friendliness generates significant differences in the attributes of firms with lower and higher values on the index score, consistent with the observed transitions of non-wage attributes around the onset of parenthood from the event-study analysis.

Figure 7 shows the estimated change in the probability of being employed at a family friendly firm compared to the year before first birth. The results show that this likelihood increases for women, even before they give birth to their first child. For males, the probability of being in a family friendly firm decreases by time since the birth of their first child.

[Figure 6–Figure 7 about here]

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[5]Note that the majority of the attributes presented in Figure 6 are not included in the logistic regression that forms the basis of creating the family friendliness index. Moreover, all differences reported in the graph are statistically significant.

Our descriptive analyses thus suggest that women are more likely to work in firms characterized as family friendly after the onset of parenthood. For men, however, there is - if anything - a decreasing probability of working in family friendly firms after becoming fathers. In the following, we analyze the correlation between wages and the family friendliness of the firm. Wages for workers may be lower because they are willing to pay for certain non-wage attributes in family friendly firms, in terms of lower wages. To investigate this potential compensating variation, we consider a baseline specification of the log wage of worker i at age t, working in firm f, located in geographical labor market region l:

$$w_{itfl} = \alpha_{0t} + \beta_1 FF^*_{it} + \beta_2 X_{it} + \epsilon_{itfl}$$

where X_{it} is a vector of variables that characterize individual productivity: educational attainment, experience, and age, ϵ_{itfl} are unobserved factors, and β_1 measures the compensating differential to the family friendliness of individual i:s firm. Column (1) of Table 3 reports the results from an OLS estimation of this baseline wage specification and shows that family friendliness is negatively related to wages. Columns (2) and (3) show that being female and the presence of children, respectively, are also negatively related to wages, which could be due to e.g., lower productivity of being a parent and/or employer discrimination against women or workers with children. In column (4) we include an interaction term between *Female* and *FF**, which show that wages are negatively related to the family friendliness of a firm, but significantly less so for female workers. In column (5), we find that the presence of children is even more negatively related to wages in (more) family friendly firms, and column (6) presents the results from a fully saturated model, where negative relationship between wages for the presence of children is almost fully accounted for by being female and working in a family friendly firm. Thus, the presence of children is clearly negatively correlated to wages, and even more so for women, and for women working in family friendly firms. However, these simple wage equations do not account for potential unobserved heterogeneity in productivity across individuals, which could bias the estimates if they are correlated with children and the family friendliness of the jobs that workers hold. To account for such unobserved heterogeneity, we make use of the panel structure of our data and estimate similar specifications with an individual-fixed effects estimator. **??** shows that, once unobserved individual heterogeneity is accounted for, the main "effect" of family friendliness on wages disappears for women, and decreases significantly for men, suggesting that workers may sort into firms with different non-wage attributes based on unobserved productivity. Moreover, children lead to a downward shift of the wage profile for women, whereas the opposite seems to hold for men. Nevertheless, the presence of children when working in a family friendly firm is negatively related to wages, and more so for women than for men. Thus, working in

a family friendly firm is negatively related to the wages of parents. In the following, we explore how male and female workers value the family friendliness of jobs in their occupational choices.

3.2 Family Friendliness & Job Choices

The results from our descriptive wage regressions show that family friendliness matters for individual wages. Next, we analyze how wages and family friendliness affects the job choices of male and female workers, with and without children. To address the role of wages and family friendliness, we limit the "jobs" that workers choose to consist of three "sectors" $j = 1, 2, 3$; government, municipal, and private sector jobs. Individual i chooses a sector j based on the returns to jobs in that sector, where the returns are characterized by returns to wages w_j and the average index FF_j^*, that characterize the family friendliness of jobs in that sector. Assume that individuals know only the average wages and average value of the index for jobs in each sector. That is, they know $E(w_j)$ and $E(FF_j^*)$. Assume that whether an individual has a child $child = 0, 1$ is predetermined. Then the following are the payoffs for the j occupational choices to individual i at age t:

$$\eta_j = \alpha_j + \beta_1 E_j(FF^*) + \beta_2 E_j(w) + \beta_{3j} child + \beta_4(E_j(FF^*) \times child) + \beta_5(E_j(w) \times child) + \delta_{jt}$$

We implement the above by estimating an alternative-specific conditional logit model of job choice, where we allow $E_j(FF^*)$ to vary by choice, but have the same coefficient in the payoff function, and we allow the coefficient on *Child* to be choice-specific. The base alternative in our specification is government sector jobs. The results are presented in Table 5, for women and men separately, and show that, holding the wage of a job constant, both women and men value the family friendliness of a job, but women with children value family friendliness even more, whereas men do not. Holding the family friendliness of a job constant, both men and women value wages positively in their choice of jobs, but the value of a job does not vary with the presence of children. Moreover, the presence of children increases the likelihood of women to be employed in the municipal and private sectors, compared to the government sector, while the probability of men choosing other sectors than government does not vary with the presence of children.

Taken together, the results from all the descriptive analyses provided in this section suggests that men and women differentially value the family friendliness in their choices of jobs, and that wages are negatively related to the family friendliness of jobs. However, estimation of compensating

14

differentials of non-wage attributes in wage equations is potentially subject to endogeneity bias to the extent that unobserved factors in the payoff functions to job choices, and in the wage equations are correlated. In the following sections, we develop a model of fertility and job choices, and discuss the identification strategies undertaken to consistently estimate the effect of firm attributes on worker mobility and for the observed gender differences in wages around the onset of parenthood.

[Table 5 about here]

4 Model

Intro to model here.

4.1 Childbearing and Job Choices

At each age t starting in the year of education completion, woman i choose a *job* and whether to have a child, $child_{it} = 1$. Once she has a child, she can no longer choose to undo the birth, but she continues to select her jobs. Jobs are with particular establishments and are located in *sectors*, where sectors can correspond to some combination of industries, e.g., privately owned or public organizations.[6] Assume that we have J work sectors.

In this model, the structure of a woman's decision-making and the realization of her choices is as follows. Woman i enters period/age t, either not employed or employed in firm $f_{j'}$ in sector j'; we refer to this as the woman's *incumbent* job. At the start of period t, woman i chooses whether to have a child, i.e., chooses $child_{it}$ and she chooses the job or non-employment in which she will spend period t. She can choose to remain in her incumbent job, take a job in some other sector, $m, m \neq j'$, or enter non-employment state. With respect to the choice of jobs in some other sector $m, m \neq j'$, what woman i actually chooses is to enter a lottery, which randomly assigns her to some firm. Thus women must value jobs in one of the other sectors based on the expected returns from a job in that sector. In contrast, at the time of their decisions, women know exactly what the returns will be from continuing to work in their incumbent job.

The returns to jobs, expected or actual, are the utility they receive from the job's wages and from the non-wage characteristics associated with that job. In our model, we characterize these non-wage characteristics by the extent to which they are *family friendly*. Let $w_{it f_m}$ denote the log of wages that

---

[6]In the empirical analysis below, we limit ourselves to the following three sectors: the government, municipality, private sectors.

woman i would receive if she worked in firm f_m in sector m and $FF^*_{tf_m}$ the index of the family friend-liness of that firm. Let $w_{itf_{j'}}$ denote the wage the woman would receive in her incumbent job during period t and the value of what we refer to as the *family friendly index*, $FF^*_{itf_{j'}}$, in this job. As noted above, at the start of period t woman i only knows the average wages, $E(w_{tm})$, and average value of the family friendly index, $E(FF^*_{tm})$, for jobs in other sectors $m, m \neq j'$, and for jobs at other firms in sector j'. Let j'' denote the set of firms in sector j' other than firm $f_{j'}$.

Let $U_{itm}(child_{it})$ denote the payoff or expected payoff woman i receives from working in a firm in sector m, conditional on whether she has a child age t or before. With respect to her incumbent job with firm $f_{j'}$, woman i at age t has the following payoff:

$$
\begin{aligned}
U_{itj'}(child_{it}) = {} & \alpha_{0j'} + \alpha_{1j'}child_{it} + \beta_1 FF^*_{itf_{j'}} + \beta_2 w_{itj'} + \beta_3 FF^*_{itj'} \cdot child_{it} \\
& + \beta_4 w_{itf_{j'}} \cdot child_{it} + \alpha_{2j'} X_{1it} + \varepsilon_{itj'},
\end{aligned}
\tag{4}
$$

where X_{1it} is a vector of woman i's characteristics, including her current age (age_{it}), whether she completed college ($coll_{it}$) and years of work experience ($exper_{it}$). For jobs in other sectors, $m, m \neq j'$, the woman's expected payoff is given by:

$$
\begin{aligned}
U_{itm}(child_{it}) = {} & \alpha_{0m} + \alpha_{1m}child_{it} + \beta_1 E(FF^*_{tm}) + \beta_2 E(w_{tm}) + \beta_3 E(FF^*_{tm}) \cdot child_{it} \\
& + \beta_4 E(w_{tm}) \cdot child_{it} + \alpha_{2m} X_{1it} + \varepsilon_{itm},
\end{aligned}
\tag{5}
$$

Finally, the payoff to the non-working state as follows:

$$
U_{it0}(child_{it}) = \alpha_{00} + \alpha_{10}child_{it} + \alpha_{20} X_{1it} + \varepsilon_{it0}.
\tag{6}
$$

which varies depending on whether a child is present or not.[7]

It follows that in period t, childless women make choices over *child* and jobs according to:

$$
m^{\dagger}_{it} = \arg\max_{child,k} U_{itm}(child_{it}), k = j', j'', k \in J.
\tag{7}
$$

For women in periods after they have had a child, i.e., $child_{it} = 1$, her job choices are characterized

---

[7]Note that an alternative specification would be to specify payoff functions for each possible (*job*, *child*) pair for a total of $L = (J+1) \cdot 2$ choices. In this formulation, in place of (5), for example, we would have 2 payoff functions of the form:

$$
\begin{aligned}
U_{itm1} &= \alpha^*_{0m0} + \beta^*_{10}E(FF^*_{tm}) + \beta^*_{20}E(w_{tm}) + \alpha^*_{2m0}X_{1it} + \varepsilon^*_{itm0}, \text{ for } child_{it} = 0, \\
U_{itm2} &= \alpha^*_{0m1} + \beta^*_{11}E(FF^*_{tm}) + \beta^*_{21}E(w_{tm}) + \alpha^*_{2m1}X_{1it} + \varepsilon^*_{itm1}, \text{ for } child_{it} = 1,
\end{aligned}
$$

for $m \neq j'$, with similar reformulations for (4) and (6).

by:

$$m_{it}^\dagger = \arg\max_k U_{itm}(child_{it} = 1), k = j', j'', k \in J. \tag{8}$$

As noted above, woman i can choose to remain in her incumbent job in firm $f_{j'}$, receiving, $w_{itf_{j'}}$ and $E(FF_{tf_{j'}}^*)$. If she chooses to obtain a job from a "different" sector, $m, m \neq j'$, including $m = j''$, the woman is randomly assigned to a firm in that sector, call it f_m and receives the wage w_{itf_m} and family friendly index, $FF_{tf_m}^*$ and her job in firm f_m will be her incumbent job as of the start of period $t + 1$.

5 Impacts of Family Friendliness on Wages

As noted in Section (Section with descriptive stats), women with children have lower earnings, e.g., grow slower, than both childless men and men who are fathers. We want to determine whether this finding is the result of mothers working in firms that are more family friendly and the wages of family friendly firms are lower, all else being equal. Consistent with the compensating differentials literature (Brown, 1980; Rosen, 1986; Hwang *et al.*, 1992; Bonhomme and Jolivet, 2009), wages for women (and men) may be lower because the non-wage features of jobs in certain firms that are friendlier to families, are ones for which workers are willing to pay for in terms of lower wages.

To examine this potential source of compensating differentials, consider the following *baseline specification* of the log wage of person i at age t working in firm f_m in sector m and is located in geographical location ℓ:

$$w_{itf_m\ell} = \gamma_{0tm} + \gamma_{1m}FF_{itj}^* + \gamma_{2m}X_{2it} + \omega_{itf_m\ell}, \tag{9}$$

where X_{2it} is a vector of variables, such as *coll*, *exper* and *exper*^{2}, that characterize individual *i*s general productivity at age t, ω_{itf_m} are unobserved factors, and γ_{1m} characterizes the compensating differential to the family friendliness of firms in sector m.

One can also consider versions of (9) that allow for differences in wages by the *gender* and possibly by the *child* status of individual i as of age t. In particular, consider the following specifications of sector-specific wage equations:

$$w_{itf_m\ell} = \gamma_{0tm\ell}^a + \gamma_{1m}^a FF_{itj}^* + \gamma_{2m}^a X_{2it} + \gamma_{3m}^a gender_i + \omega_{itf_m\ell}^a, \tag{10}$$

$$w_{itf_m\ell} = \gamma_{0tm\ell}^b + \gamma_{1m}^b FF_{itj}^* + \gamma_{2m}^b X_{2it} + \gamma_{3m}^b gender_i + \gamma_{4m}^b child_{it} + \omega_{itf_m\ell}^b, \tag{11}$$

and

$$
\begin{aligned}
w_{itf_m\ell} = \ & \gamma_{0tm\ell}^c + \gamma_{1m}^c FF_{itj}^* + \gamma_{2m}^c X_{2it} + \gamma_{3m}^c gender_i + \gamma_{4m}^c child_{it} + \gamma_{5m}^c gender_i \cdot FF_{itj}^* + \\
& \gamma_{6m}^c child_{it} \cdot FF_{itj}^* + \gamma_{7m}^c gender_i \cdot child_{it} \cdot FF_{itj}^* + \omega_{itf_m\ell}^b.
\end{aligned} \tag{12}
$$

A simple version of the compensating differentials hypothesis would argue that wages should vary as function of FF^* and *per se* because of a worker's gender or whether she/he has a child, i.e., that the specification in (9) is the correct specification. Specifications in (10) - (12) allow for deviations from the simple compensating differentials characterization of differential compensation across firms that vary in their family friendliness and can be motivated either by other gender- or parent-based differences in a worker's productivity and/or by the view that workers experience discrimination in pay by gender and/or parent status. We also explore these possibilities in our empirical analysis.

6 Endogeneity Bias & Identification Strategies

Herein we consider strategies for identifying the parameters in the payoff functions – especially β_1, β_2, and β_3 which measure preferences over the wages and family friendliness of jobs and how they vary by parenthood – and the parameters characterizing the compensating differentials in wages for family friendliness in equations (9) - (12), i.e., $\gamma_{1m}^h, h = a, b$ and $\gamma_{1m}^c, \gamma_{5m}^c, \gamma_{6m}^c$ & γ_{7m}^c. But, as first noted in Hwang *et al.* (1992), the estimation of compensating differentials of non-wage attributes in wage equations is is potentially subject to endogeneity bias the extent to which the unobserved components, the εs, in individuals' payoff functions and/or individuals' unobserved productivity factors, the ωs, in the wage equations are correlated, both at a given age t and at across ages for individual i. For similar reasons, the estimation of parameters characterizing the payoffs to wages and family friendliness also are potentially subject to such biases. More precisely, suppose that these errors are correlated, i.e.,

$$
\begin{aligned}
Cov(\varepsilon_{itm}, \varepsilon_{itm'}) &\neq 0 \\
Cov(\varepsilon_{itm}, \omega_{itm'}) &\neq 0 \\
Cov(\omega_{itm}, \omega_{itm'}) &\neq 0
\end{aligned} \tag{13}
$$

for all m, m'. We layout several strategies for identifying these parameters, some which involve making explicit assumptions about the unobserved elements of the above models and/or ones that exploit the availability of instrumental variables for some of the above model components.

6.1 Factor Structure

One strategy we employ is to assume that the disturbances, ε_{itm} and $\omega_{itm'}$ can be written as follows:

$$
\begin{aligned}
\varepsilon_{itm} &= \lambda^\varepsilon_m \psi_i + \eta^\varepsilon_{itm} \\
\omega_{itm'} &= \lambda^\omega_{m'} \psi_i + \eta^\omega_{itm'}
\end{aligned}
\tag{14}
$$

for all t, m, m', where λ^ε_m and $\lambda^\omega_{m'}$ are *factor loadings* to be estimated and where η^ε_{itm} and $\eta^\omega_{itm'}$ are uncorrelated with ψ_i and are, themselves, *serially* and *contemporaneously* uncorrelated, for all m, m'.[8]

To proceed with the estimation of the above model, note that conditional on ψ_i, w_{it} is conditionally (on ψ) correlated with ζ_{it}, i.e.,

$$
E(\zeta_{it}|W_{it}, X_{it}, \psi_i) = 0.
\tag{15}
$$

If one takes a stand on the distribution of $\eta^\varepsilon_{it} \equiv (\eta^\varepsilon_{it1}, \eta^\varepsilon_{it2}, ..., \eta^\varepsilon_{t,J+1})$, e.g., η^ε_{itk} has a standard Type I extreme value distribution, then one can form the likelihood function for the model of job and childbearing choice characterized by the payoffs in (5) - (6), the decision problem in (7) and (8) and the wage equation in (9) or the alternatives in (10) - (12) as follows:

$$
\begin{aligned}
\mathcal{L} = \int_{-\infty}^{\infty} \prod_{i=1}^{N} \prod_{t=1}^{T} \prod_{m=1}^{J+1} \Big[g(w_{itf_m} - \gamma_{0tm\ell} - \gamma_{1m}FF^*_{itj} - \gamma_{2m}X_{2it} - \lambda^\omega_{tm}\psi_i) \times \\
Pr(Y_{it} = m|X_{it}, W_{it}, \psi_i, \alpha, \lambda^\zeta) \Big]^{I(Y_{it}=m)} f(\psi)d\psi,
\end{aligned}
\tag{16}
$$

where Y_{it} is the indicator variable for the job (or job and childbearing) choices, $Y_{it} = m, m = 1, ..., J+1$, $I(\cdot)$ is the indicator function, $g(\cdot)$ is the density for η^ω_{itm} and $f(\psi)$ is the density for ψ.

7 Results

TBA

8 Conclusion

The last decades have seen a closing of the gender gaps in labor force participation and in educational attainment. However, significant gender gaps in wages persist in all industrialized countries. Recent evidence suggest that the remaining gender wage gap can almost be fully accounted for by the adverse effects of children on the wages of women, who continue to take the main responsibility

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[8]The specification in (14) can be extended to allow ψ_i to be a vector.

for child rearing. In this paper, we investigate the source of this motherhood wage penalty. We depart from the literature showing that part of the gender wage gap can be attributed to the differential sorting of men and women across jobs that differ in both the wage they pay and their non-wage attributes. In particular, we explore the role of job amenities for workers' transition across jobs around the onset of parenthood and for gender differences in wages. We use a rich longitudinal matched employer-employee data set based on Swedish administrative registers that includes information on fertility, wage rates, labor income, educational attainment, and background and demographic characteristics for the entire Swedish population. Our data also includes a wide range of workplace attributes, constructed by characterizing the entire workforce of establishment in terms of e.g., the skill level requirement of occupations, hierarchical structure, gender composition, and wage dispersion. Our analyses show that childbearing entails job-switches to firms with fewer advancement opportunities and lower profitability for women, but not for men. Childbearing also shifts female workers to jobs with a higher share of women co-workers with young children, suggesting that some jobs have features that make them more easily combined with family responsibilities and thus are more "family friendly". We construct an index of family friendliness that parsimoniously captures the features of a job that make them more easily combined with family responsibilities by contrasting the non-wage characteristics of firms in which parents and childless individuals work. Using this index, we show that women switch to family friendly firms after giving birth to their first child, whereas no such pattern is found for male workers. We also show that individual wages are negatively correlated with the family friendliness of a job, but less so for women than for men. Studying the job choices that individuals make, we also find that family friendliness has no impact on the occupational choice of male workers with children, while it is of significant importance for mothers' occupational choices.

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TABLE 1.

Summary statistics for male and female workers at the start of the labor market career

	(1) Males	(2) Females
Log monthly wage rate	10.15	10.08
	(0.231)	(0.194)
Work hours % of full-time	0.934	0.850
	(0.183)	(0.252)
Log labor income	12.25	12.09
	(0.491)	(0.458)
Compulsory schooling	0.0454	0.0368
	(0.208)	(0.188)
High school	0.293	0.302
	(0.455)	(0.459)
College	0.661	0.662
	(0.473)	(0.473)
Government sector	0.189	0.107
	(0.392)	(0.309)
Municipal sector	0.249	0.577
	(0.433)	(0.494)
Private sector	0.562	0.316
	(0.496)	(0.465)
Foreign born	0.124	0.106
	(0.330)	(0.308))
Age	25.50	24.30
	(4.342)	(3.761)
Years btw graduation & 1st job	1.398	1.134
	(2.103)	(1.724)
Observations	55,019	91,209

NOTE.— The sample consists of individuals born 1957-1986, who entered their first employment in 1996-2007, and who had their first child after entering the labor market. The summary statistics are measured in the year of labor market entry for each individual. Wages and labor income are deflated using 2013 consumer price index.

TABLE 2.
Summary statistics: workplace attributes of male and female workers' entry jobs

	(1) Males	(2) Females
Mean co-worker wages	21,355.4	18,247.9
	(8369.8)	(7719.9)
Mean wages of co-workers with kids	20,574.0	19,857.0
	(6616.3)	(6108.7)
Mean work hours, % of full-time	0.929	0.857
	(0.0874)	(0.116)
Share female co-workers	0.431	0.696
	(0.245)	(0.209)
Share compulsory schooling	0.147	0.132
	(0.121)	(0.109)
Share high school	0.417	0.421
	(0.194)	(0.186)
Share college	0.426	0.436
	(0.274)	(0.247)
Share foreign born	0.127	0.130
	(0.134)	(0.137)
Number of employees	1255.9	1268.6
	(2660.8)	(2978.1)
Share managers	0.0392	0.0219
	(0.0665)	(0.0374)
Share professionals	0.171	0.161
	(0.211)	(0.194)
Share technicians	0.135	0.125
	(0.162)	(0.145)
Share medium skilled	0.275	0.269
	(0.229)	(0.196))
Share low skilled	0.0331	0.0337
	(0.0788)	(0.0647)
Share with same occupation	0.293	0.271
	(0.217)	(0.200)
Number of occupational titles	16.06	14.46
	(11.07)	(11.06)
Share females with young kids	0.0981	0.161
	(0.0706)	(0.0836)
Wage dispersion p90/p50	1.408	1.359
	(0.259)	(0.250)
Wage dispersion p90/p10	1.756	1.660
	(0.430)	(0.392)
Share part-time workers	0.197	0.247
	(0.197)	(0.166)
Observations	55,019	91,209

NOTE.— The sample consists of individuals born 1957-1986, who entered their first employment in 1996-2007, and who had their first child after entering the labor market. The summary statistics are measured in the year of labor market entry for each individual. Wages and labor income are deflated using 2013 consumer price index.

FIGURE 1.

Male and female wages, contracted working hours and progression of occupational skill level, by time since first birth
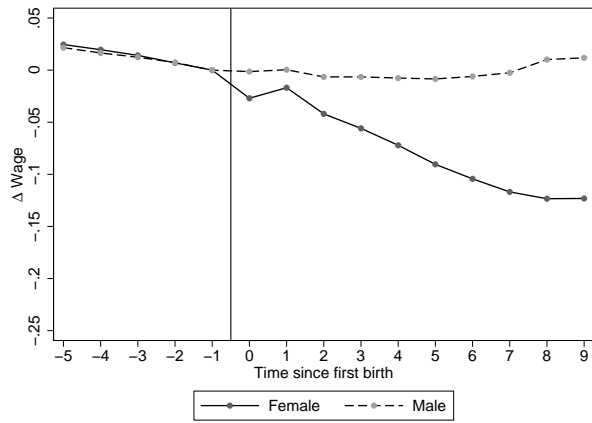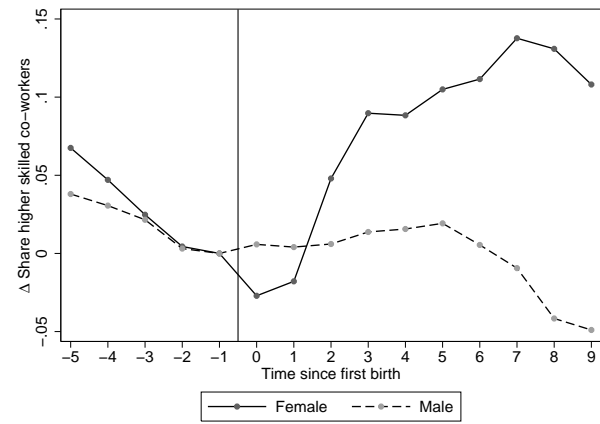

(A)

Wage rates
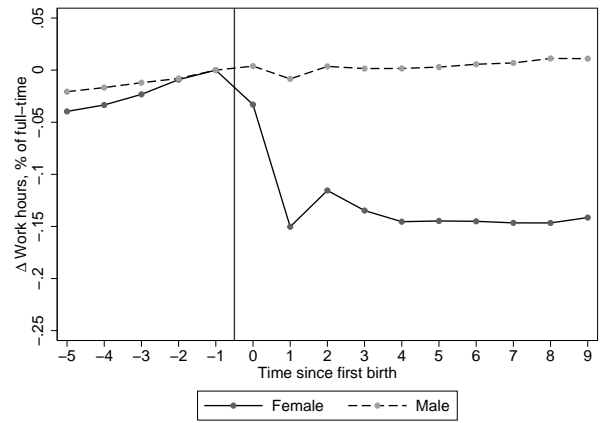
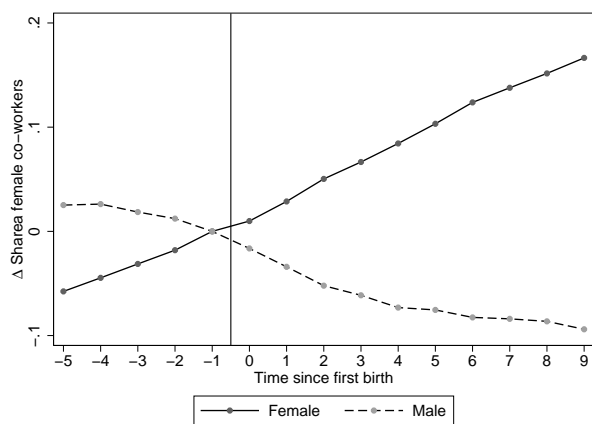

(B)

Contracted working hours
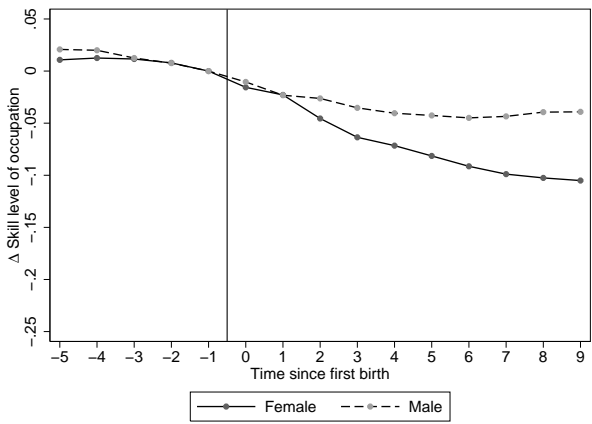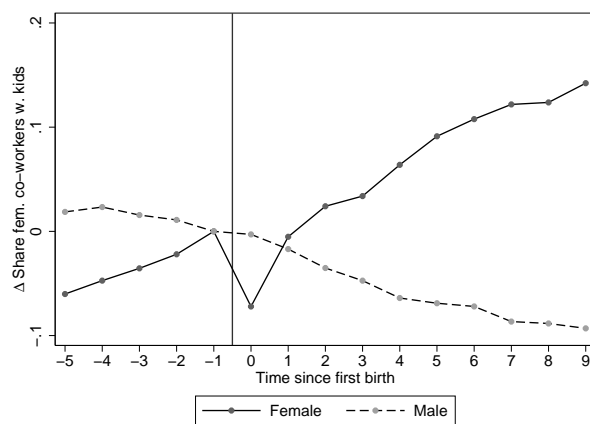

(C)

Skill-level of occupation

(D)

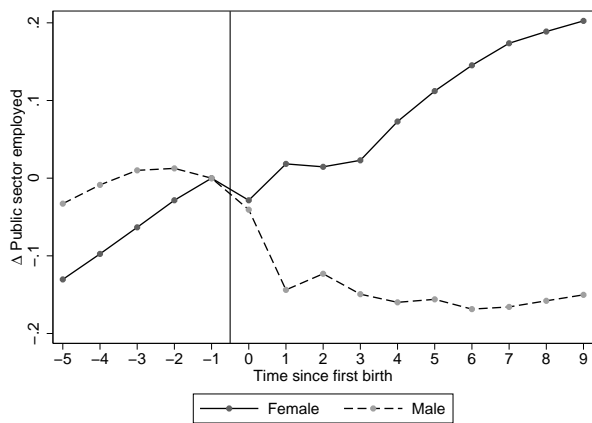Share co-workers with higher skill-level

FIGURE 2.

Workplace gender composition, sector and commuting distance by time since first birth
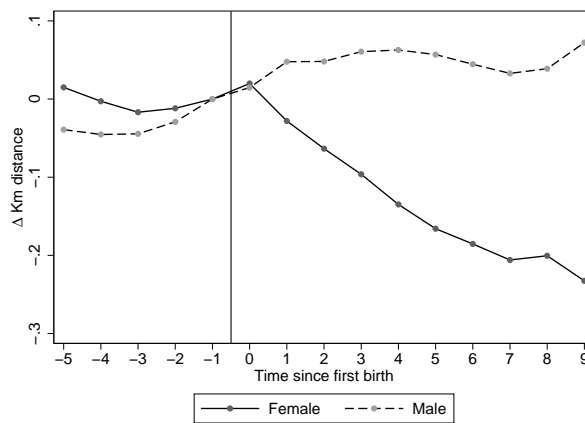

(A)

Share female co-workers
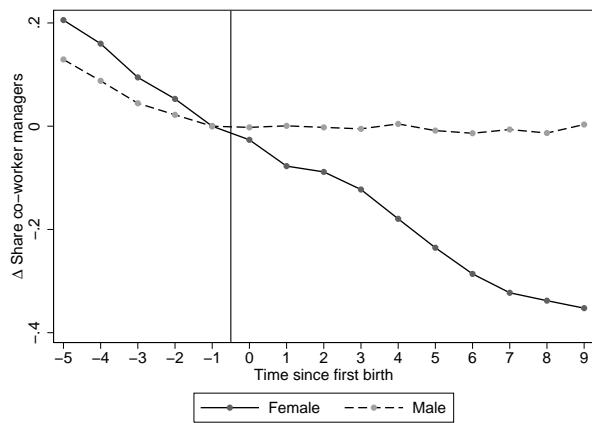
(B)

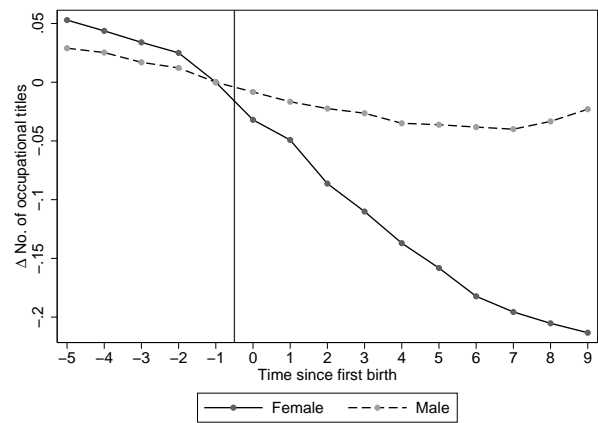Share female co-workers with young children

(C)

Public sector employment

(D)

Kilometer distance between home and work

FIGURE 3.

Organizational structure and average co-worker wages at women's and men's workplaces by time since first birth
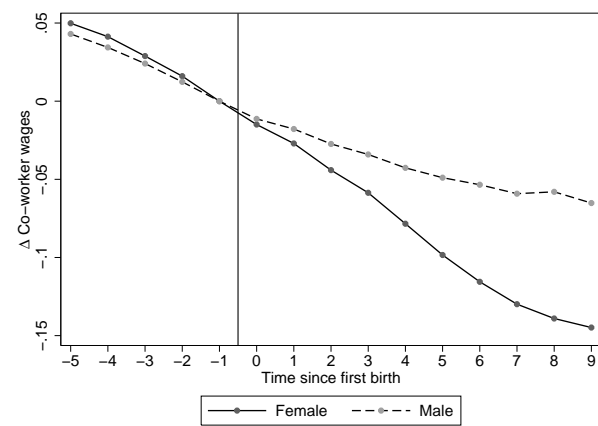

(A)
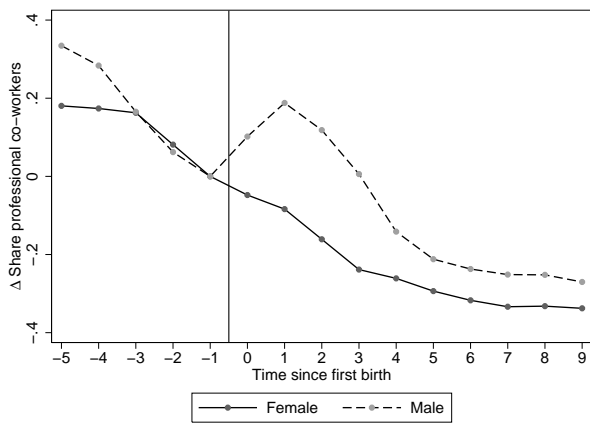
Share managers

(B)

Range of occupational titles

(C)
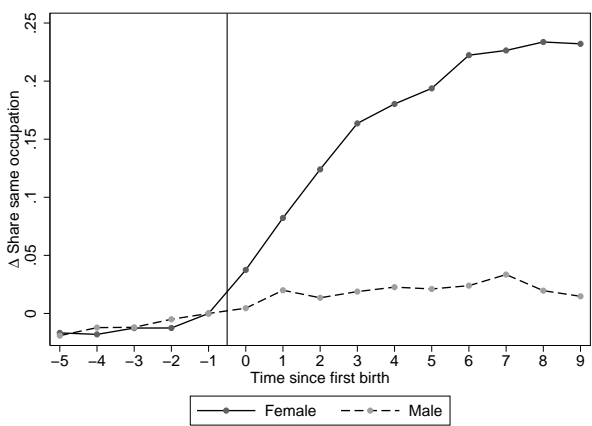
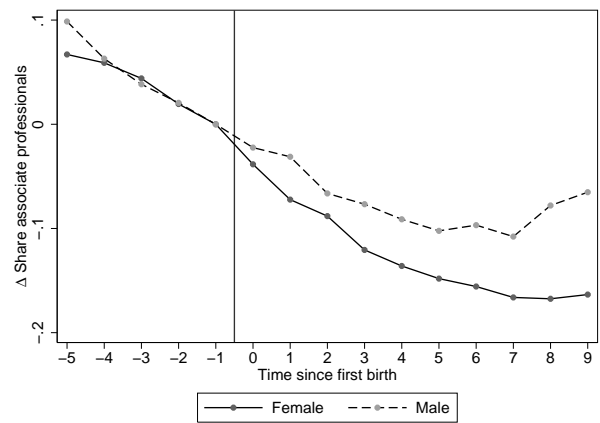Share co-workers with same occupation as focal worker
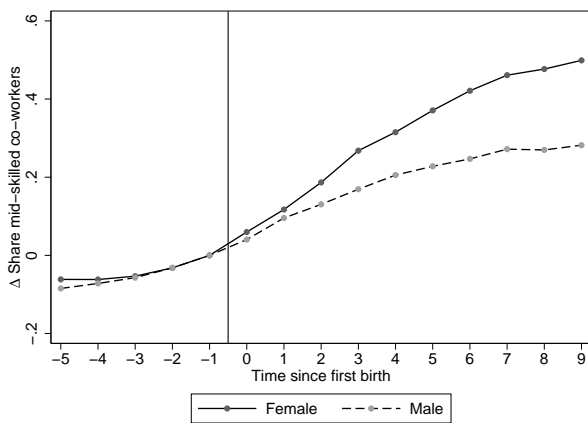

(D)

Average co-worker wages

FIGURE 4.

Co-worker skill-level at women's and men's workplaces by time since first birth
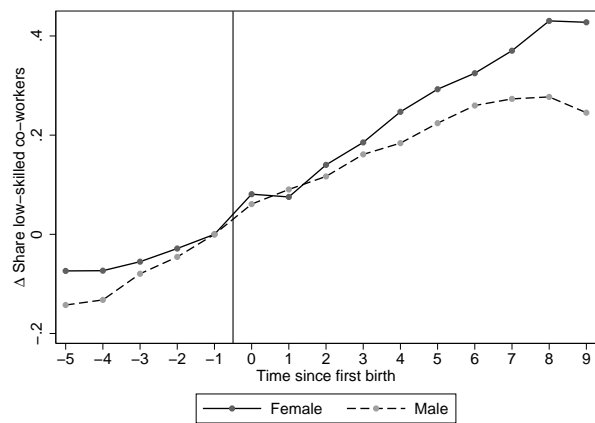

(A)

Share professional co-workers

(B)

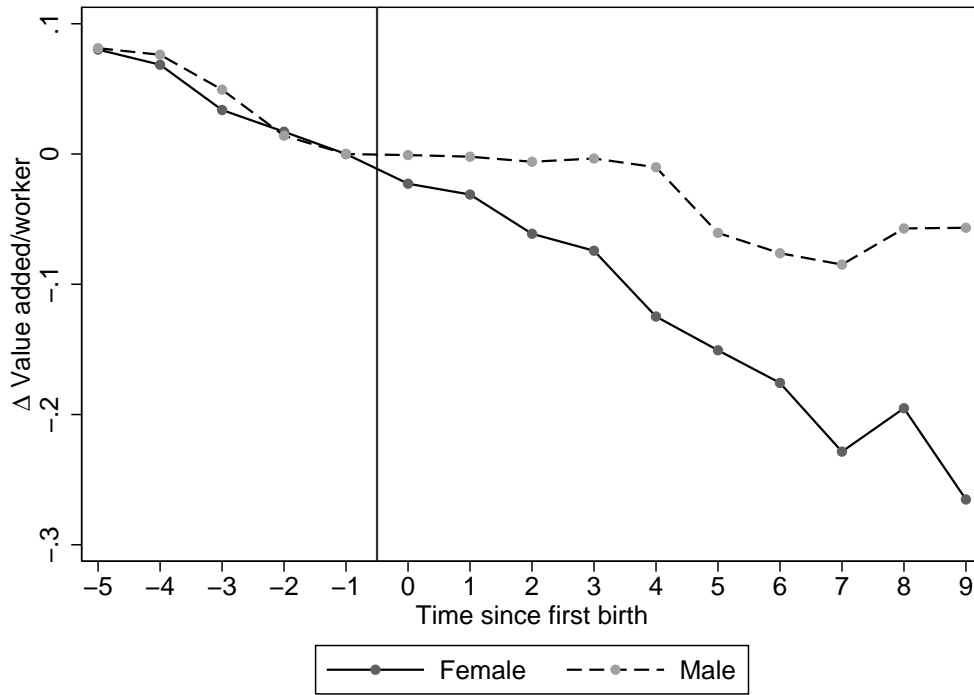Share associate professional and technician co-workers

(C)

Share co-workers with intermediate-skilled occupations

(D)

Share co-workers with low-skilled occupations

FIGURE 5.

Workplace value-added per worker, before and after first birth

NOTE.— The figure shows the evolution of value-added per worker of workplaces at individuals are employed, before and after first birth.

FIGURE 6.

Differences in attributes between family friendly and non-family friendly firms

NOTE.— The figure shows differences in mean characteristics between firms classified as family friendly and non-family friendly firms.

FIGURE 7.

Estimated probability of working in a family friendly firm by time since first birth

Family friendly firm
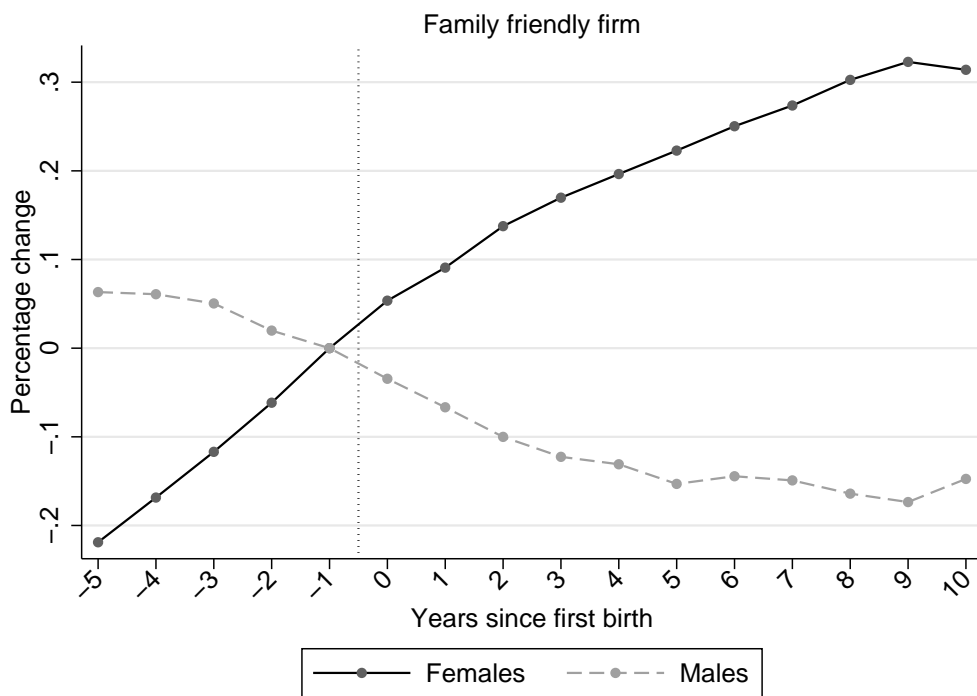
NOTE.— Each point pertains to the estimated probability of working at a family friendly firm at time *t* compared to the year before first birth.

TABLE 3.

OLS Estimates of the Impact of Family Friendliness on Wages

	(1)	(2)	(3)	(4)	(5)	6
Experience	0.0326***	0.0322***	0.0338***	0.0337***	0.0342***	0.0350***
	(0.0003)	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Experience sq.	-0.0012***	-0.0010***	-0.0011***	-0.0011***	-0.0012***	-0.0012***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
FF^*	-0.0649***	-0.0513***	-0.0511***	-0.0602***	-0.0424***	-0.0587***
	(0.0002)	(0.0002)	(0.0002)	(0.0004)	(0.0003)	(0.0005)
Female		-0.1100***	-0.1103***	-0.1143***	-0.1101***	-0.0917***
		(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0005)
Child			-0.0167***	-0.0169***	-0.0098***	0.0136***
			(0.0005)	(0.0005)	(0.0005)	(0.0006)
$FF^* \times$ Female				0.0140***		0.0200***
				(0.0004)		(0.0006)
$FF^* \times$ Child					-0.0194***	-0.0054***
					(0.0004)	(0.0007)
Female $\times$ Child						-0.0473***
						(0.0008)
$FF^* \times$ Female $\times$ Child						-0.0107***
						(0.0009)
Observations	1,217 594	1,217 594	1,217 594	1,217 594	1,217 594	1,217 594

NOTE.— The estimations include controls for age, calendar year, a dummy for being foreign born, and dummies for educational attainment (three categories: compulsory schooling, high school, college). *** p <0.01, ** p<0.05, * p<0.1.

TABLE 4.

Individual Fixed Effects Estimates of the Impact of Family Friendliness on Wages

	(1) Females	(2) Males
Experience	0.0771***	0.0823***
	(0.0264)	(0.0198)
Experience sq.	-0.0009***	-0.0014***
	(0.0000)	(0.0000)
FF^*	0.0000	-0.0035***
	(0.0003)	(0.0006)
Child	-0.0057***	0.0053***
	(0.0005)	(0.0006)
$FF^* \times$ Child	-0.0137***	-0.0089***
	(0.0003)	(0.0006)
Observations	685,730	531,864

NOTE.— The estimations include controls for age, calendar year, a dummy for being foreign born, and dummies for educational attainment (three categories: compulsory schooling, high school, college). *** p <0.01, ** p<0.05, * p<0.1.

TABLE 5.

Job choices of men and women

	(1) Female	(2) Male
	Females	Males
Job (sector) choice		
Family-friendly index	1.15***	1.20***
	(0.04)	(0.06)
Average log wages	0.18***	0.11***
	(0.01)	(0.02)
Index × child	0.12***	0.06
	(0.05)	(0.07)
Avg. log wages × child	0.03	0.03
	(0.02)	(0.03)
Municipality sector		
Age	-0.12***	0.00
	(0.00)	(0.00)
College	-0.60***	-0.69***
	(0.03)	(0.03)
Child	0.32***	0.13
	(0.07)	(0.10)
Years of experience	0.03***	-0.04***
	(0.00)	(0.01)
Private sector		
Age	-0.07***	-0.05***
	(0.00)	(0.00)
College	-1.04***	-1.29***
	(0.02)	(0.02)
Child	0.19***	0.10
	(0.05)	(0.07)
Years of experience	0.04***	0.07***
	(0.00)	(0.00)
Observations	666,708	565,050

NOTE.— The table presents parameter estimates from an alternative-specific conditional logit model of occupational (sector) choice. Base alternative: government sector jobs. *** p <0.01, ** p<0.05, * p<0.1.
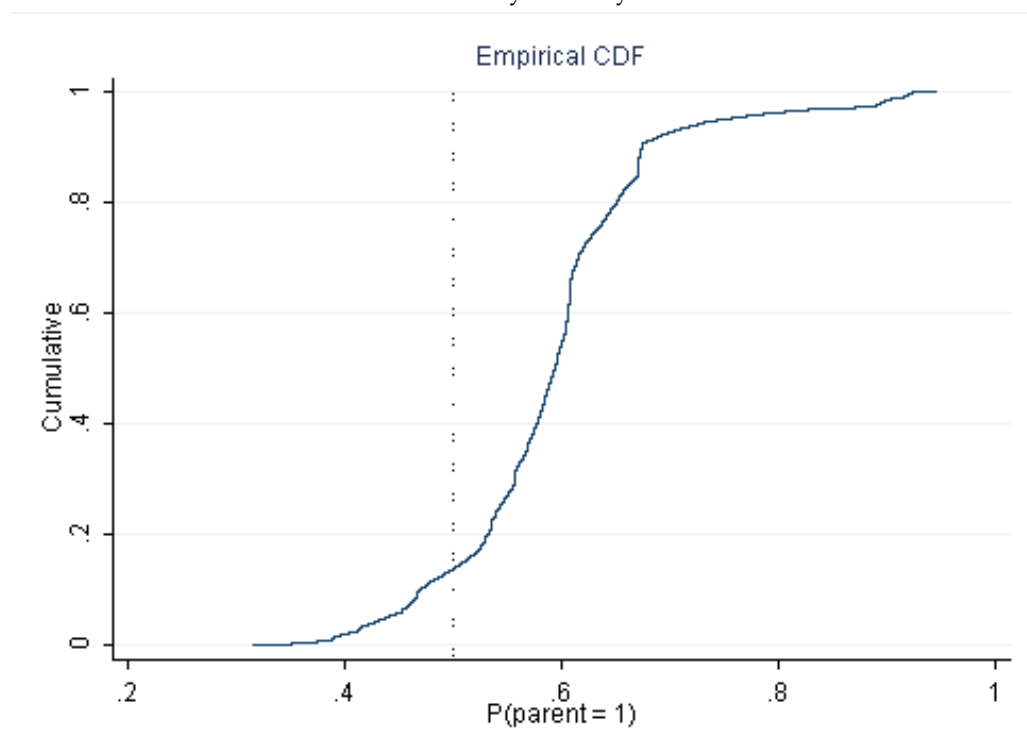
Appendix A   Additional Tables and Figures

FIGURE A.1.

Inter-workplace mobility
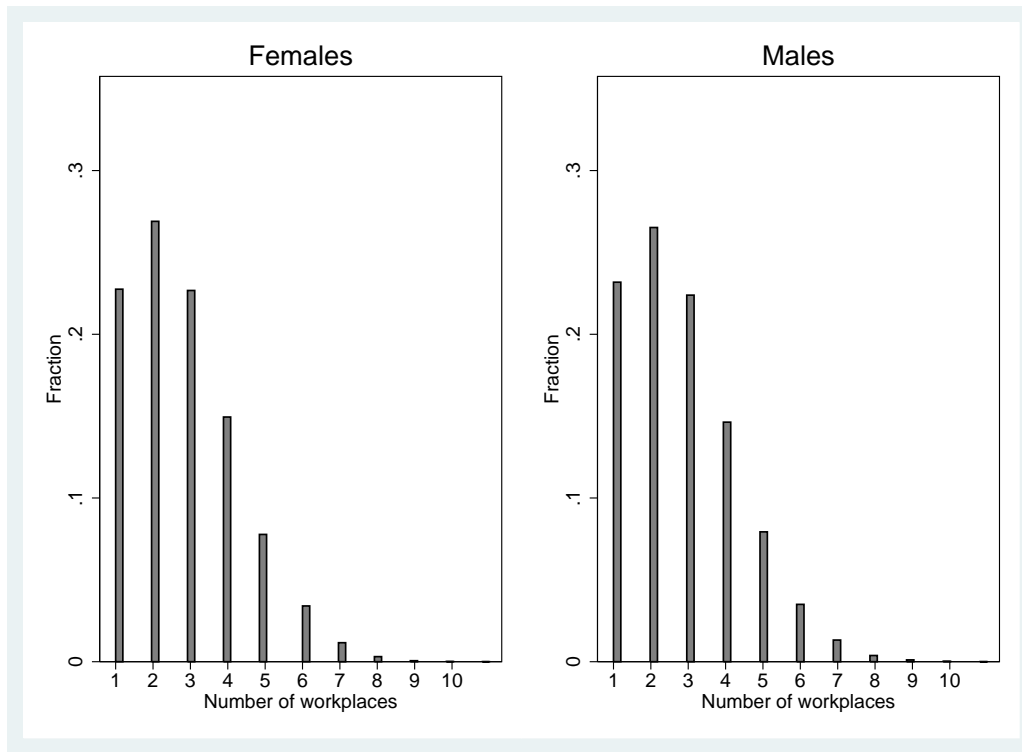
NOTE.— The figures show the distribution of the number of distinct jobs (employers) held by female and male workers, respectively, during a period spanning 5 years before and 10 years after first birth.

FIGURE A.2.
CDF of Family Friendly Index

NOTE.— The figure shows the empirical CDF of family friendly index FF^*.