

## Parents' hourly wages in female same-sex and different-sex couples: The role of partner's gender and employers

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### Abstract

**Objective:** This research article investigates the relationship between parenthood and wages, considering the partner's gender and the influence of employers on wage trajectories for birth and non-birth mothers and fathers.

**Background:** It offers a novel examination whether the gender of the partner affects the wage outcomes for birth mothers and explores the differential impact of employers on wages for birth and non-birth mothers, using Dutch register data.

**Method:** Utilizing OLS regression, Heckman selection, and fixed-effects models, this study focuses on all Dutch couples who had their first child between 2008 and 2014 in the Netherlands, from two years prior to the birth until two years after birth.

**Results:** Consistent with human capital theory, the findings reveal a consistent and unfavourable wage development for birth mothers, regardless of whether they are in same-sex couples or different-sex couples. The wage development for non-birth mothers in female same-sex couples resembles that of fathers, showing a more positive trajectory compared to birth mothers. Furthermore, the analysis indicates that employers do not differentiate in their treatment of birth and non-birth mothers, suggesting that biological constraints associated with motherhood impact wages of birth mothers, while both their male and female partners' wages do not decline.

**Conclusion:** The study contributes to the existing literature in family sociology, highlighting the need for policies and interventions that address the specific challenges faced by birth mothers in the labor market.

**Key words:** discrimination, labour market income, motherhood, parenthood, same-sex couples, wage penalty, administrative data



## 1. Introduction

It is well known that mothers earn less than others in the labour market (Avellar & Smock, 2003; Budig & England, 2001; Gangl & Ziefle, 2009), with research revealing the negative effects of motherhood on earnings in the western world. While mothers see their income decline by between 5% and 10% per child, fathers may experience an increase in pay after transitioning to parenthood (Gangl & Ziefle, 2009; Hodges & Budig, 2010; Koslowski, 2010). Two different groups of explanatory mechanisms have been suggested for this phenomenon that can be divided into two main categories. The first is that mothers may experience a drop in income owing to unobserved influences of motherhood on their productivity at work. This mechanism is explained in different ways by Human Capital Theory, Specialization Theories (including new home economic, bargaining models and the allocation of energy model) and Compensating Wage Differentials. The second category, in an entirely different vein, is that mothers earn less income because of statistical discrimination on the part of employers, which is in line with Expectation States Theory (Oesch et al., 2017). These explanatory mechanisms offer different reasons of a biological or societal nature to explain how motherhood impacts women's earnings over time.

Whereas numerous studies have focused on the emergence of the 'motherhood wage penalty' for mothers in different-sex couples (DSC), almost no attention has been paid to mothers' earnings development among female same-sex couples (FSSC) (but see Machado & Jaspers, 2023; Rosenbaum, 2019). FSSCs can be of interest when clarifying various phenomena that typically result from gendered behaviour (Boye & Evertsson, 2020; Downing & Goldberg, 2011; Evertsson & Boye, 2018; Jaspers & Verbakel, 2013), and studying mothers in FSSCs can inform an examination of income development after the transition to parenthood for several reasons. For one thing, FSSCs offer a unique opportunity to test whether income development after that transition can be ascribed to the biological aspects of motherhood (such as pregnancy and breastfeeding) or to motherhood as a societal construct. The fact that female same-sex couples consist of two mothers, of which only one, the birth mother, experiences the biological circumstances of motherhood, offers a new avenue for research. The non-biological or non-birth mother does not undergo any of the 'biological restrictions' experienced by the birth mother. Investigating whether income development differs between non-birth and birth mothers hence reveals the impact of the biological factors that come with childbearing. Comparing birth mothers in FSSCs to mothers in DSCs is also of crucial interest. Unlike a mother in a DSC, an FSSC birth mother is raising her child with another woman, who might influence her decisions differently than a man would. It is also informative to compare an FSSC non-birth mother and a DSC father because while neither faces the biological consequences of motherhood, both are partners of a biological mother, potentially eliciting feelings of responsibility in them as well as a factually heavier demand on household financial resources. By comparing mothers in an FSSC to parents in a DSC, and also accounting for how a possible change of employers around the time of childbirth affects parents' wage trajectories, this article aims to shed more light on the phenomenon of parental income development and asks the following question: *How do income developments differ between mothers and fathers in DSCs and birth and non-birth mothers in FSSCs after they transition to parenthood?*

So far, only a few studies have looked into the effect that motherhood has on the earnings of FSSCs. Waite & Denier (2015) do not find any difference in income after the transition to motherhood in Canada, whereas Baumle (2009) identifies a 'motherhood premium' for same-sex mothers in the USA, without, however, differentiating between birth and non-birth mothers. Andresen & Nix (2022) find that giving birth has a small effect on income trajectories in Norway, but mostly conclude that the child penalty experienced by women in heterosexual couples can be explained by female preferences for childcare and gender norms.

The national context in the Netherlands sets it apart as a unique case to study our research question. As is typical of a coordinated market economy, collective bargaining governs wage development in the Dutch labour market, so that employees generally receive annual pay rises, making an actual decline in wages unlikely after a transition to motherhood. Nevertheless, the Netherlands is the country with the highest part time work rate, especially among mothers. Work hours in turn heavily impact wage accrual, so the expectation is that motherhood will impact the size of the wage rise and that mothers and fathers will therefore differ in that respect. The Netherlands is also a unique case to study same-sex couples. It is considered a frontrunner in LGBTQI+ rights (Evertsson et al., 2020; Kelley, 2001). It was the first country in the world to legalize gay marriage, has never banned FSSC from access to fertility clinics and gave non-birth mothers in FSSC full parental rights from 1998 onwards.

This article describes a study that makes use of Dutch registry data, which includes information on labour market transitions as well as demographic data on the entire Dutch population. The research involved longitudinal analysis of a sample consisting of heterosexual parents and all available cases of mothers in committed FSSC relationships. The Netherlands is one of the few countries for which an extensive database on same-sex female couples is available. From a theoretical perspective, this article also aims to shed more light on mothers' income development, not only for mothers in FSSCs but for mothers in general. To our knowledge, it is furthermore the first study to examine how changing employers influences the wage development of birth and non-birth mothers.

## 2. Theory

### 2.1 *Gender roles*

The theoretical approaches explaining mothers' wage development are deeply embedded in the concept of gender ideology. Traditional gender ideology harkens back to the 'doctrines of different spheres', promoting the role of the male breadwinner and the female homemaker (Davis & Greenstein, 2009). According to this ideology, household work is a female task. Sutphin (2010: 195) states that 'for women, doing housework is often an invisible task because they are socialised to believe that they are supposed to perform housework'. Men, in contrast, are supposed to fulfil the role of full-time provider for their families. This division is reinforced by the transition to parenthood. Individual gender ideology is shaped by individual experiences and values, which influence individuals' decisions and, in particular, family-related behaviour (Davis & Greenstein, 2009). Depending on ideology, this can also result into a more gender-egalitarian lifestyle (Nitsche & Grunow, 2016). However, labour market choices are influenced not only by a person's gender ideology but also by the attitudes of others, for example a partner or employer. Most of the theoretical mechanisms explaining mothers' and fathers' earnings development depart from the idea of the mother as the heteronormative family's primary caregiver, rooted in traditional gender ideology (Oesch et al., 2017). The choices mothers make in the labour market should therefore always be interpreted in terms of the expectations and restrictions related to their choice set.

The following section describes four prominent approaches to explaining parental earnings trends, all developed for different-sex couples. The first two assume that (birth) mothers have lower productivity, lower performance at work, and are therefore paid less than non-mothers. The third presumes that mothers accept a lower income (voluntarily), whereas the fourth proposes that mothers are treated differently from non-mothers (involuntarily). How each of these approaches might be applied to birth and non-birth mothers in FSSCs and to mothers and fathers in DSCs is discussed below.

### 2.2 *Human capital theory*

Human Capital Theory explains workers' income as directly related to their productivity at work, defined in turn as the individual's experience, education and skills. Time spent away from the educational system or the labour market automatically decreases productivity because the individual has not invested in their human capital during that period (Becker, 1991; Gangl & Ziefle, 2009). Following this line of argument, motherhood can be considered an obstacle to the accumulation of human capital. Having a baby occupies a major share of a woman's time owing to pregnancy, preparations before birth, recovery after giving birth, breastfeeding and maternal leaves (Evertsson & Boye, 2018). Mothers therefore have less time at their disposal to invest in their human capital compared with childless women. They might not be able to spend as much time on continuing education, developing job-related skills and gaining work experience (Staff & Mortimer, 2012). A decline in a mother's work commitment could lead to a decrease in human capital (Evertsson, 2013). In addition, motherhood often occurs at the onset of a woman's work biography (Taniguchi, 1999), a crucial phase in a career. Losing human capital during this critical period may impact mothers' careers and thus their long-term earnings. Even before transitioning to parenthood, future mothers may already have fewer incentives to invest in their human capital because they are planning to have a family and raise children (Sigle-Rushton & Waldfogel, 2007). Studies differ as to whether mothers'

lower wages can be attributed mainly to their education and work experience prior to childbirth (Staff & Mortimer, 2012) or to the detrimental effect of pregnancy and childcare on human capital (Kalist, 2008). According to Human Capital Theory, birth mothers are assumed to perform worse at work than childless employees or fathers. They have less work experience than non-mothers and may well be lower educated if they had planned to focus on motherhood. A mothers' loss in productivity is attributed to the time spent on pregnancy, breastfeeding and related issues. Both FSSC birth mothers and DSC birth mothers can be expected to have these biological experiences. According to the human capital approach, parenthood should affect those parents who physically carry the child more than those who do not give birth. The effects of parenthood on FSSC non-birth mothers should therefore be similar to those on DSC fathers.

### *2.3 Allocation of energy and division of labor*

A second, related expectation, posits that motherhood could lead to a decline in workplace productivity as well. In this perspective, the key factor is not the impact of children on human capital, but rather on time and energy. The argument suggests that the responsibilities of raising children demand considerable effort, potentially disrupting the requirements of professional work. If mothers bear the primary responsibility for childcare tasks, including emotional care and planning, they might have reduced energy to contribute to the workforce, resulting in decreased productivity. When a greater share of total available energy is spent on one part of life, less energy remains to be spent on other activities (Budig & England, 2001). For many reasons, including gendered socialization, and gendered power dynamics within couples, women traditionally find themselves with less human capital than their male partners in DSC. New home economics (Becker, 1985) argues that initial and even minor differences in human capital may result in full specialization. In line with traditional gender ideology, mothers are expected to spend a larger share of their energy on childcare and household chores than non-mothers. In line with this approach, a crucial factor is how much of the household and childrearing work the mother's partner assumes. Unpaid labour is not necessarily evenly divided between two partners and is heavily skewed towards the female partner in heterosexual couples, especially after childbirth. Research has found, however, that FSSCs put much more emphasis on an equal division of household chores and paid labour than DSCs (Álvarez Bernardo et al., 2018; Boye & Evertsson, 2020; Brewster, 2017; Jaspers & Verbakel, 2013; Van der Vleuten et al., 2021). Because tasks are more equally divided in an FSSC, the Allocation of Energy approach predicts that mothers in a DSC will experience a stronger negative effect on income trajectories than birth mothers in an FSSC. Unlike FSSC non-birth mothers who also derive some utility from childcare activities as it may confirm a motherhood identity (Akerlof & Kranton, 2000), it is expected that DSC fathers spend the smallest share of their energy at home and should thus experience fewer negative effects on income than FSSC non-birth mothers. Evidence for the Allocation of Energy approach is ambiguous. Productivity at work is hard to assess and only a small body of research has tested this theory. Some studies, relying on self-reported productivity measures, reject the mechanism (Bielby & Bielby, 1984; Kmec, 2011), whereas others find support, either taking children's age as a proxy (based on the assumption that less energy needs to be spent on childcare as children grow older) (Anderson et al., 2003; Kahn et al., 2014) or investigating professional athletes' performance (Kalist, 2008). Support can further be found for the gender of the mother's partner as a critical factor (Evertsson & Boye, 2018; Evertsson et al., 2018; Machado & Jaspers, 2023). Similar to the human capital theory, the Allocation of Energy approach thus assumes that mothers do perform worse at work than non-mothers, but it attributes this worsened performance mainly to societal factors, such as normative expectations of women in the household in general, and mothers in particular, as well as a stronger focus on equality in FSSCs. This suggests that the wage development of FSSC non-birth mothers will be less beneficial than that of DSC fathers.

### *2.4 Compensating wage differentials*

The third approach considers that mothers need to spend a considerable amount not only of their energy but also of their time on motherhood duties. Daily tasks such as feeding and unexpected events such as doctor's appointments are easier to handle when the mother is physically close to her child. Compensating Wage Differentials Theory suggests that mothers prefer family-friendly working conditions that allow them to organise time around their child's needs. Such family-compatible conditions might include short

commutes, the possibility of working from home, or being employed part time. The theory assumes that wanting an occupation with these characteristics limits the range of appropriate jobs, and that such jobs are more likely to be poorly paid (Filer, 1985). It suggests that mothers accept losses in income willingly and trade higher salaries for family-compatible working conditions because they are held to be primarily responsible for taking care of the family (Felfe, 2012; Gangl & Ziefle, 2009). Mothers are hence more likely to end up in lower-paying jobs compared with childless individuals or fathers. The body of evidence for this is small and inconsistent. Mothers are found to be more likely to work in part-time jobs (Kalleberg, 2000), especially if they have younger children (Misra et al., 2007), but this does not explain all of the variance in income and the effect is small (Felfe, 2012) or non-existent (Budig & England, 2001). Moreover, mothers experience a larger motherhood wage penalty when making use of their employers' family-friendly support policies (Glass, 2004). Unlike the Human Capital and Allocation of Energy theories, Compensating Wage Differentials Theory suggests that mothers voluntarily miss out on a higher income by conforming to traditional gender roles and the expectation that a good mother will arrange her life around the needs of her child. Birth mothers and non-birth mothers might, however, undergo different motherhood identity formations (Evertsson & Boye, 2018). In FSSCs, both women define and occupy the mother role, but even they tend to divide childcare chores in such a way that the birth mother is more closely involved (Ciano-Boyce & Shelley-Sireci, 2002). Research shows that family members' positions within the family impact their behaviour outside of the family (Hequembourg, 2004). In line with that notion, FSSC non-birth mothers – who appear to adopt the role of secondary carer within the household – are more likely to spend more hours in paid work than birth mothers. With their embodied view of motherhood, birth mothers may experience a different level of commitment (McNair & Dempsey, 2018). Reaffirming this idea, Hennekam & Ladge (2017) find that non-birth mothers have a harder time revealing and living their mother identity than do birth mothers, especially at work. According to this theory, motherhood should have a weaker effect on FSSC birth mothers' income than on DSC mothers' income but a stronger effect than on FSSC non-birth mothers' income.

This study tests these three theories against one another in competing hypotheses that compare birth and non-birth mothers in FSSCs to mothers in DSCs and to fathers in DSCs.

*1a) According to Human Capital Theory, mothers in DSCs and birth mothers in FSSCs should see the same rise in income after transitioning to parenthood. Income can be expected to rise similarly for all parents who do not physically bear the child. Non-birth mothers in FSSCs should thus experience a rise in income similar to fathers in DSCs.*

*1b) According to Allocation of Energy Theory, mothers in DSCs should see the smallest rise in income after transitioning to parenthood. Both mothers in FSSCs should see the same rise in income, which should be higher than that of mothers in DSCs. DSC fathers are expected to see the largest increase in income.*

*1c) According to Compensating Wage Differentials Theory, mothers in DSCs should see the smallest rise in income after transitioning to parenthood. Birth mothers in FSSCs should see a larger rise in income, and non-birth mothers in FSSCs an even larger rise. DSC fathers are expected to see a larger increase in earnings than FSSC non-birth mothers.*

## 2.5 Statistical discrimination and expectation states theory

On a different note, Expectation States Theory explains the motherhood wage penalty as the result of statistical discrimination. The stereotype of the good mother offers a sharp contradiction to the image of the ideal worker (Correll et al., 2007). Employers are assumed to believe that mothers perform worse at work than non-mothers. This approach presupposes the existence of status characteristics, which are 'categorical distinction[s] among people... [with] widely held cultural beliefs [that] associate greater status worthiness and competence with one category of the distinction' (Ridgeway & Correll, 2004). Status characteristics serve the purpose of simplifying judgements about others. Separate from gender, the specific role of motherhood serves as a status characteristic that tells employers that the person possessing that characteristic is likely to show poorer work performance and commitment than another person without that characteristic (Ridgeway & Correll, 2004). It could be argued that lesbian women face different stereotypes in the labour market. Research has shown that lesbian women are considered more dominant, autonomous and assertive. In general, they are more likely to have a continuous employment history and may thus appear more committed to their jobs (Baert, 2014). In many contexts, lesbian women experience a 'wage premium' compared to their heterosexual counterparts (Badget et al. 2020; Drydakis, 2022). Even after

transitioning to parenthood, mothers in FSSCs are considered more productive employees than mothers in DSCs (Peplau & Fingerhut, 2004), but this studies did not differentiate between birth and non-birth mothers. Mothers in FSSC may be perceived as more committed workers, or it may be because the non-birth mother is considered the family's primary breadwinner (Correll et al., 2007) and they may thus receive a breadwinner premium.

Employers cannot be expected to know their employees' sexual orientation, however, and negative stereotypes about mothers in general could play a role. Whether DSC mothers and birth and non-birth mothers in FSSCs are treated differently depends on the information the employer has. Employer stereotyping of birth mothers may therefore differ depending on whether the mother has been with the same employer or has switched to a new employer after transitioning to parenthood. Fuller (2018) suggests that if a new employer is aware of a woman's motherhood, the employer is more likely to interpret this as the mother having a lower-level commitment and showing poorer work performance, whereas an employer who is already aware of a woman's high work standards will have a stable image of her commitment and performance, even after she has transitioned to motherhood. Research has also found that mothers make fewer wage gains when starting new jobs compared to childless women (Looze, 2014). It is, however, unclear whether such losses result from employer discrimination. Evidence by Bygren et al. (2017) contradicts this idea. In their study of job changes, they did not find any employer discrimination on the basis of gender or parental status. These studies assume that the employer knows the woman's parental status, which is – especially with regard to FSSC couples in the Netherlands – not necessarily the case. If a birth mother stays with the same employer, the employer will be aware of her pregnancy (as there are specific policies that apply, for example regarding maternal leave), know that she is a biological mother, most likely think of her as the primary caregiver and judge her job performance accordingly. Conversely, the employer will also be aware when a woman is transitioning to motherhood without going through pregnancy, as a different set of policies applies (for example birth leave similar to that for fathers). The employer might ascribe a different status characteristic to her (non-birth mother) and consider her a secondary caregiver and primary family earner, and thus a more productive employee. When, however, either the birth mother or the non-birth mother in an FSSC begins working for a new employer after birth, this employer will most likely not be aware of the details of her motherhood and can be expected to judge all mothers in the same way. According to Expectation States Theory, fathers who switch to a new employer will be judged as more productive employees and thus experience a larger increase in income than any type of mother distinguished here.

2) *According to Expectation States Theory, all mothers in DSCs and FSSCs should experience the same wage development when they switch to a new employer. Fathers in DSCs who switch to a new employer should experience a more beneficial income development than non-birth mothers in FSSCs.*

### 3. Data

This study makes use of Dutch registry data from Statistics Netherlands for the years 2006 to 2016, covering all births between 2008 and 2014 and the two years prior and after the births. Because of the comprehensive number of cases, the data are especially suited to answering the above-mentioned research question. It is possible to identify every female same-sex couple that had children in this period as long as both partners were registered as legal parents in the Netherlands. Male same-sex couples that transition to parenthood in the Netherlands are not considered, as they are extremely rare, and they do not have a birth mother or non-birth mother to compare to our sample. The data further provides demographic and job-related information. Registry data are retrieved from the System of Social Statistical Datasets (SSD). The backbone of the SSD is the Personal Records Database (the Dutch population register), in which every individual is assigned a unique identifier. This allows to identify children and their parents and link their population register information to the Netherlands Perinatal Care Registry (Perined). The target population consists of all individuals in couples who had their first child between 2008 and 2014. The population register data provides information on their income within a four-year period, including two years before and up to two years after the birth of their first child. FSSCs are identified by registered sex only, and the Perined registry identifies the birth mothers. The following selections are made to form the sample: First, all members of the Dutch population who had their first child within the study period are considered. As the focus lies on income development when first transitioning to parenthood, the selection is limited to parents who did not

have any children prior to 2008. Cases are dropped if the children were born outside of the Netherlands, as information on these children is incomplete. Other cases left out of the sample are children adopted by both parents, since the focus lies on trajectories of birth mothers and their partners, and children and both parents who are not registered at the same address for the two-year period after childbirth. Because a study of income development requires a previous income, parents are selected who have been employed two years before having their child. A further choice is to retain only the one parent of the couple in the data if the other did not fulfil the employment criteria. For the purpose of the study, employment is defined as being employed and working at least 12 hours a week and earning at least 7€ per hour. Lower wages are below the legal minimum wage and are considered compensation for voluntary work. Fewer work hours also may indicate special circumstances. However, in additional analyses, we use an extended sample defining employment as having any positive hourly wages (see appendix), as a robustness check. Self-employed parents are disregarded because there are no precise measures of hourly wages for them. Another important criterion for the sample is that the biological mother of the child has to be known, a crucial factor in distinguishing between birth mother and non-birth mother in FSSCs. Table 1 shows the stepwise reduction in cases in the sample with  $t=1$  referring to the point in time two years prior to childbirth and  $t=2$  referring to two years after childbirth. After applying all selection criteria, a total of 1,355 children born to FSSC is left.

Table 1: Stepwise reduction in cases for sample of couples, by couple type

Selection	DSC	FSSC	Total
(1) Couples with legal child of both parents born in 2008-2014	544,602	2,066	546,668
(2) Child born in NL	500,754	2,035	502,789
(3) Child is not adopted	500,722	2,032	502,754
(4) Birth mother is known and part of the couple	484,191	1,515	485,706
(5) All family members still in the Netherlands and alive at $t=2$	472,817	1,504	474,321
(6) Child living with both parents in $t=2$	440,796	1,418	442,214
(7) At least one parent is employed at $t=1$ , with positive wage	409,532	1,363	410,895
(8) At least one parent is employed at $t=1$ , working at least 12 hours/week and 7 EUR hourly wage	402,595	1,355	403,950

Source: System of Social Statistical Datasets (SSD)

## 4. Measurements

The following measures were obtained at  $t=1$ , two years prior to childbirth, and  $t=2$ , two years after childbirth.

### 4.1 Dependent variable

The dependent variable was the natural logarithm of hourly income of employees (wages). Hourly income was calculated by dividing monthly earnings by the contracted monthly working hours. The latter is based on information about actually worked and paid hours, which employers need to report to the tax authority. The logarithm of hourly wage was chosen to account for the skewed distribution of the residuals of hourly wage. The log transformation served the purpose of obtaining symmetrically distributed residuals. The log hourly wages can be interpreted as approximate percentage change in income between groups, which

corresponds to the actual percentage change only for small coefficients (Thornton & Innes 1989). The true percentage change in income can be estimated by calculating  $(\exp(B1) - 1) * 100$ .

#### 4.2 Independent variables

The first main independent variable was a categorical variable indicating whether the observation concerned a FSSC birth mother, a FSSC non-birth mother, a DSC mother or a DSC father. The second main independent variable was a dummy indicating whether a person had been working for the same employer at  $t=1$  and  $t=2$ .

#### 4.3 Control variables

Control variables that proved influential in prior research were included: whether a person was the only earner in the household at  $t=1$  and  $t=2$ ; whether a person had ceased working between the two time points; year; duration of continuous employment at  $t=1$  on a five-point scale (< 1 year, at least 1 year, at least 2 years, at least 3 years or at least 4 years); working part-time at  $t=1$  and  $t=2$  (defined as working < 34 hours per week); whether a person was working in the public sector at  $t=1$  or  $t=2$  (public sector = working for government, health care or education). The models were further controlled for job in a female-dominated sector (sectors in which females accounted for more than 50% of the workforce in 2011, based on population data of Statistics Netherlands). These were: the hotel and catering industry; education; health care; culture, sport and recreation; other services; and household. Other control variables indicated whether the parents had been living together at  $t=1$ , parents' age at childbirth, their ethnicity, and whether they were in a formal union. The cross-sectional models also controlled for income at  $t=1$ . The final control variable was for three categories of education (low, medium and high) and a category 'no information on education'.

### 5. Models

Wage development after the transition to parenthood is examined using a series of models. A logit model first estimates how likely people were to stop working after  $t=1$ . An OLS model then estimates on the natural logarithm of the hourly wage at  $t=2$  with the independent and control variables mentioned above, plus a control for hourly wage at  $t=1$ . In the next step, a Heckman selection model is applied to account for those no longer employed at  $t=2$ . Employment at  $t=2$  is modeled as a function of the type of parent, marital status at  $t=1$  and  $t=2$ , job seniority, working part-time at  $t=1$ , the person's personal income at  $t=1$ , and the partner's personal income at  $t=1$ . This model only estimates the likelihood of a parent who is employed at  $t=1$  and is unemployed at  $t=2$ . It does not capture the small number of people who switched from employment to self-employed.

Lastly, person fixed-effects models are employed. A Hausman test showed that fixed-effects models are preferable to random-effects models, the advantage being that they control for stable, unobserved heterogeneity. An unobserved, time-invariant criterion, for example, might be a person's values influencing their attitude towards working as a mother. Fixed effects models are based the following formula:

$$Y_{it} = \beta_1 Time_{it} + \sum_p \beta_p (Time_{it} \cdot TypeParent_i) + \gamma Z_{it} + \alpha_i + \varepsilon_{it}$$

where  $Y_{it}$  is the logarithm of hourly income of individual  $i$  at time  $t$ ,  $\beta_1$  is the main effect of time — which corresponds to having or not a child, since individuals are parents  $t=2$  but not in  $t=1$  —,  $\beta_p$  is a set of coefficients capturing how the effect of having a child vary by type of parent,  $Z_{it}$  is a vector of time varying controls,  $\alpha_i$  are individual intercepts that account for stable characteristics of the individual and  $\varepsilon_{it}$  is the error term. For all models, the standard errors were clustered at the couple level to account for the cases in which both parents were included in the sample.

Table 2: Descriptive statistics for variables used in analysis, by type of parent

	FSSC birth mother	FSSC non-birth mother	DSC mother	DSC father
Hourly wage at t=1	17.92 (7.31)	17.39 (6.46)	14.81 (5.28)	16.51 (7.24)
Hourly wage at t=2	21.19 (11.35)	20.97 (8.42)	18.09 (10.38)	20.19 (11.91)
Change of employer	0.45	0.52	0.47	0.52
Stopped employment after t=1	0.08	0.09	0.16	0.11
Stopped working after t=1	0.05	0.05	0.13	0.05
Changed from employment to self-employment after t=1	0.03	0.04	0.03	0.05
Duration of continuous employment spell at t=1				
Less than 1yr	0.05	0.07	0.09	0.07
At least 1yr	0.05	0.08	0.10	0.08
At least 2yrs	0.06	0.08	0.11	0.08
At least 3yrs	0.09	0.13	0.15	0.12
At least 4yrs	0.75	0.64	0.55	0.65
Sole earner at t=1	0.10	0.07	0.08	0.16
Sole earner at t=2	0.07	0.08	0.04	0.17
Part-time at t=1	0.22	0.18	0.23	0.07
Part-time at t=2	0.51	0.35	0.72	0.08
Public sector at t=1	0.60	0.55	0.45	0.16
Female sector at t=1	0.65	0.60	0.51	0.17
Female sector at t=1	0.56	0.49	0.48	0.14
Female sector at t=2	0.59	0.53	0.51	0.13
Ethnicity				
Dutch	0.89	0.90	0.84	0.83
Moroccan	0.00	0.00	0.02	0.02
Turkish	0.00	0.00	0.02	0.02
Surinamese	0.01	0.01	0.01	0.02
Antilles & Aruba	0.01	0.01	0.01	0.01
Other non-western c.	0.01	0.01	0.03	0.03
Other western c.	0.08	0.08	0.08	0.08
Married/registered at t=1	0.29	0.30	0.24	0.24
Married/registered at t=2	0.86	0.86	0.62	0.63
Age at time of childbirth	33.71 (3.89)	32.89 (5.15)	29.73 (3.94)	31.87 (4.80)
Living together at t=1	0.81	0.82	0.74	0.72
Education				
Low	0.04	0.03	0.05	0.07
Medium	0.22	0.23	0.31	0.30
High	0.61	0.58	0.49	0.41
(Missing)	0.14	0.16	0.15	0.21
N	1,210	1,177	338,936	344,920

Source: System of Social Statistical Datasets (SSD)

## 6. Results

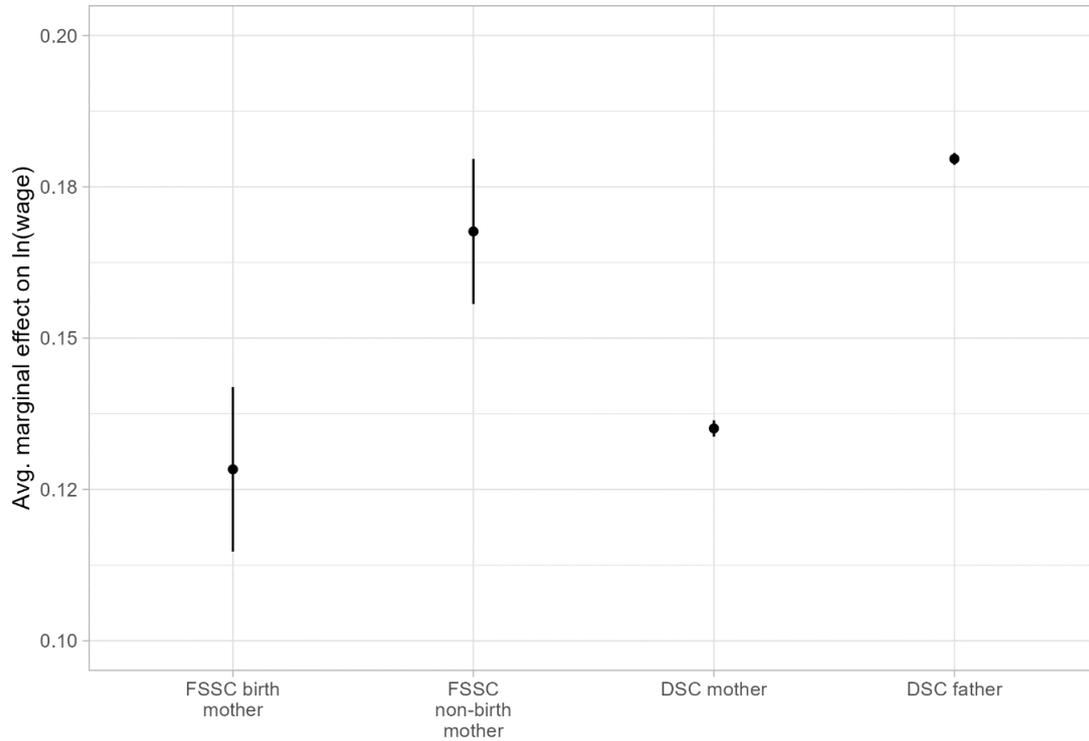
### 6.1 Descriptive results

The final sample consisted of 1,210 FSSC birth mothers, 1,177 FSSC non-birth mothers, 338,936 mothers in DSCs and 344,920 fathers in DSCs. Descriptive results can be found in Table 2. FSSC birth mothers have the highest hourly earnings at  $t=1$ , earning on average 17.92€, followed by FSSC non-birth mothers earning 17.39€, DSC fathers earning 16.51€ and DSC mothers earning 14.81€ per hour. FSSC partners are typically higher educated than DSC partners, which explains these initial income differences (Jaspers & Verbakel, 2013). Two years after childbirth, birth and non-birth mothers in FSSCs have average hourly earnings of 21€, whereas DSC mothers have an average hourly income of 18€ and DSC fathers receive on average 20€. DSC fathers are most often sole earners, whereas DSC mothers form the category who most often stopped working altogether between  $t=1$  and  $t=2$ . Mothers in FSSCs are on average older than DSC parents, with the FSSC birth mother being 34, the FSSC non-birth mother 33, the DSC father 32 and the DSC mother 30 at childbirth. Mothers in FSSCs are more likely to be in the highest age category than mothers in DSCs. Fathers in DSCs are least likely to be in the highest age category. The descriptive results show that mothers in FSSCs are a select group, especially with regard to age and education.

### 6.2 Multivariate results

Table 3 shows the results of different models, based on the sample of all couples employed at  $t=1$  and not self-employed at  $t=2$ . The dependent variable of the cross-sectional models is the hourly wage at  $t=2$ , and the OLS model therefore also excludes those not employed at  $t=2$ . Birth mothers in FSSC couples are the reference category. The OLS regression model shows that non-birth mothers in FSSCs and fathers in DSCs experience a significantly larger increase in earnings than FSSC birth mothers. The size of the effects for FSSC non-birth mothers and DSC fathers is also similar. The increase in hourly wages of FSSC non-birth mothers is  $(\exp(0.020) - 1) * 100 = 2\%$  higher than that of FSSC birth mothers, whereas the increase for DSC fathers is  $(\exp(0.040) - 1) * 100 = 4.1\%$  higher. The hourly wages of DSC mothers are  $(\exp(0.014) - 1) * 100 = 1.4\%$  lower than those of FSSC birth mothers. However, mothers in particular may decide to stop working after childbirth and to account for these, a Heckman selection model was estimated that considered the switch from employment to unemployment. The dependent variable was once again the logarithm of hourly wage at  $t=2$ . The results of the Heckman model support the OLS estimates. The increase in hourly wages is  $(\exp(0.018) - 1) * 100 = 1.8\%$  higher for FSSC non-birth mothers and  $(\exp(0.040) - 1) * 100 = 4.1\%$  higher for DSC fathers than for FSSC birth mothers. Once we account for mothers leaving the labor market after childbirth, no significant difference can be found between the FSSC birth mothers and DSC mothers. Both the OLS model and the Heckman model include the control variables mentioned above. Full tables, displaying all controls can be found in the [appendix](#) (Table 5). Finally, a fixed-effects model was estimated to control for unobserved heterogeneity. A Hausman test showed that the fixed-effects model is preferable to the random-effects model. As 'type of parent' is a time-constant variable that cannot be included in the fixed-effects model on its own, it is included as an interaction term with a variable indicating the time, ranging from 0 at  $t=1$  to 1 at  $t=2$ . As all individuals had transitioned to parenthood at  $t=2$ , this interaction estimates their income development after having a child. The main effect of the interaction between type of parent and having a child is the slope for the reference category, FSSC birth mothers. The birth mother sees an increase in hourly earnings of  $(\exp(0.116) - 1) * 100 = 12.3\%$  between  $t=1$  and  $t=2$ . The interaction parameters for FSSC non-birth mothers and DSC fathers show the differences between the slopes of these groups compared to the reference category. The slopes of both groups differ significantly from that of FSSC birth mothers. The effect found for FSSC non-birth mothers differs by  $(\exp(0.037) - 1) * 100 = 3.8\%$  and for DSC fathers by  $(\exp(0.049) - 1) * 100 = 5\%$  from FSSC birth mothers. These results confirm what was already found in the Heckman model. With regard to the DSC mother, the fixed effects model confirms the results of the Heckman model and does not reveal any significant difference between the DSC mother and the FSSC birth mother in income development. The full results including all controls can be found in the [appendix](#) (Table 7).

Figure 1: Average marginal effects of having a child on log wages, by type of parent



Note: Effect of having a child corresponds to effect of time from FE model. Error bars represent 95% CI

Table 3: Regression results for OLS, Heckman and Fixed-Effects models

	(1) OLS	(2) Heckman	(3) FE
FSSC non-birth mother	0.020* (0.009)	0.018* (0.009)	
DSC mother	-0.014* (0.006)	-0.008 (0.006)	
DSC father	0.040*** (0.006)	0.040*** (0.006)	
Time			0.116*** (0.007)
Time* Parent type			
FSSC non-birth mother			0.037*** (0.009)
DSC mother			0.006 (0.007)
DSC father			0.049*** (0.007)
(Intercept)	2.434*** (0.007)	2.461*** (0.007)	
Obs.	594,678	636,749	1,215,078
R-squared	0.64		0.89

Note: Standard errors in parentheses, clustered at the couple level (\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001).

Table 4: Regression results, including change of employer interaction

	(1)	(2)	(3)
	OLS	Heckman	FE
FSSC non-birth mother	0.020 (0.011)	0.017 (0.011)	
DSC mother	-0.008 (0.008)	-0.004 (0.008)	
DSC father	0.039*** (0.008)	0.038*** (0.008)	
Time			0.123*** (0.009)
Time*Parent type			
FFSSC non-birth mother			0.028* (0.012)
DSC mother			0.002 (0.009)
DSC father			0.038*** (0.009)
Change of employer <sup>a</sup>	0.021 (0.013)	0.019 (0.013)	0.011 (0.014)
Parent type*Change of employer <sup>a</sup>			
FSSC non-birth mother	-0.001 (0.018)	0.001 (0.018)	0.021 (0.018)
DSC mother	-0.013 (0.013)	-0.010 (0.013)	0.009 (0.014)
DSC father	0.000 (0.013)	0.002 (0.013)	0.024+ (0.014)
(Intercept)	2.431*** (0.008)	2.459*** (0.008)	
Obs.	594,678	636,749	1,215,078
R-squared	0.64		0.88

Note: For the fixed-effects model, these coefficients include and interaction with time. See full results in the [Appendix](#). Standard errors in parentheses, clustered at the couple level \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Figure 1 shows the average marginal effects of time on income development in the fixed-effects model. Here, we see that the 95% confidence intervals in the increase in hourly wages of FSSC non-birth mothers and DSC fathers overlap (i.e. their increases do not differ significantly), but these two do not overlap with those of FSSC birth mothers and DSC mothers. As the N of the reference category, FSSC birth mothers, is small in comparison to the DSC mothers and fathers, the model is re-estimated several times, now using all other types of parents as reference categories. Results of these models, which can be found in the [appendix](#) (Table 8), do support the significant difference in earnings increase between the FSSC birth mother and non-birth mother. No significant difference can be found between FSSC non-birth mothers and DSC fathers. Our results support the Human Capital hypothesis (H1a), which in turn means that hypotheses 1b (Allocation of Energy) and 1c (Compensating Wage Differentials) are not supported by our findings. For our second hypothesis we include an interaction between a dummy indicating whether parents changed employers between  $t=1$  and  $t=2$  and type of parent. The results can be found in Table 4. The full results including all controls can be found in the [appendix](#) (Table 6). The main effect of the interaction between change of employer and type of parent is the slope for the reference category, birth mothers in FSSCs. In our final model this is not significant, indicating that changing employers has no significant effect on the income development of FSSC birth mothers. The interaction parameters for FSSC non-birth mothers, DSC mothers and DSC fathers show the differences between the slopes for these groups compared to the

reference category. As none of them is significant, the fixed-effects model indicates that the effect of an FSSC birth mother changing employer is not significantly different from that of any other type of parent.

Nevertheless, the main effect of changing employer when included in the model without the interaction (see Table 3) is significantly positive, meaning that a change of employer has a positive effect on wage trajectories for all types of parents. Since birth mothers do not receive less of a premium for job mobility than do non-birth mothers or fathers, our results do not support hypothesis 2.

## 7. Discussion

This article studies income development after the transition to parenthood in the Netherlands. Specifically, mothers in female same-sex couples (FSSC) are compared to mothers and fathers in different-sex couples (DSC), producing new insights on the impact of motherhood on wages for FSSCs and helping to disentangle biological from societal explanations for parents' wage development. Making use of Dutch registry data from Statistics Netherlands, the study examined couples having their first child between 2008 and 2014. Every individual registered as resident in the Netherlands is covered by the registry data, making it possible to study even smaller groups in society, such as mothers in female same-sex couples. The data further contain demographic information and labour market outcomes. The downside of working with registry data is that they do not cover subjective information, for example attitudes, values and opinions.

Overall, the findings indicate that in terms of wage trajectories, FSSC birth mothers are more like DSC birth mothers, while FSSC non-birth mothers resemble DSC fathers. All four groups see their hourly wages increase over this four-year period, in line with the Dutch labour market system of providing annual pay rises to employees. The results suggest, however, that there is a difference between parents who carry the child physically and those who do not, in line with the Human Capital hypothesis. As hypothesised, FSSC and DSC birth mothers experience a similar wage development after childbirth that is less beneficial than that of FSSC non-birth mothers and DSC fathers. We can however, not determine whether this may be due to birth mothers being indeed less productive at work. The wage development of the partners of birth mothers is similar, again supporting hypothesis 1a and refuting 1b (Allocation of Energy) and 1c (Compensating Wage Differentials). With regard to Expectation States Theory, the results do not support hypothesis 2. Overall, changing employers has a beneficial effect on hourly wage, in line with previous literature that found job mobility to be rewarded economically, especially for younger employees (Lam et al., 2012). In line with this study's initial assumption, a change of employer has similarly beneficial effects on FSSC birth mothers, FSSC non-birth mothers and DSC mothers. However, contrary to expectations, a change of employer does not affect DSC fathers differently from either type of mother. Rather than delivering support for employer discrimination against mothers, this result leads to the assumption that a new employer does either not have any information on the new employee's parenthood status or simply does not discriminate against mothers. The findings suggest that discrimination against mothers does not result in differences in income development when switching to a new employer after parenthood. As we found similarly small income increases for birth mothers and similarly larger increases for those parents who did not give birth regardless of whether they stayed or left employment at  $t=1$ , employer discrimination might be possible at different points. It may be that employers distinguish between the status characteristic of being birth and non-birth mothers and only discriminate against birth mothers. They might consider FSSC non-birth mothers to be family breadwinners and not discriminate against them.

One limitation of this article is that the data do not permit better identification of employer discrimination. Future research could examine this by, for example, conducting employer surveys and audit studies testing employers' prejudices against birth and non-birth mothers. Moreover, this study was unable to investigate long-term income development and how it might differ between FSSC mothers and DSC parents. Because the group of FSSC mothers was already small, it would have been impossible to focus solely on those mothers who could be tracked for a longer period after childbirth with this sample. In addition, FSSC mothers may switch birth and non-birth roles when they have a second child, potentially leading to them taking on new roles within the family and in the labour market. Nevertheless, it would be interesting to examine long-term developments in order to gain more insight into FSSCs wages. As the literature on parental wage development among same-sex couples is scarce, there are many questions that future research needs to address. How do wages develop for men in male same-sex couples who transition to parenthood? How can this be compared to fathers in DSCs? And what is the situation for either FSSC or

DSC couples who adopt a child? As there is no birth-giving parent in either male same-sex couples or couples who adopt, neither partner is impacted biologically (by pregnancy and breastfeeding). One further limitation is that this study focuses on hourly wage but does not take total income into account. With a large share of the labour force (mothers in particular) working part time, hourly wages are only part of the picture when it comes to income inequality within and between couples. Future studies could look at total income, as FSSCs might make different choices with respect to hours of work than DSCs in the Netherlands (Jaspers & Verbakel, 2013). This study covers the entire population of the Netherlands, but our findings may not always translate to all other contexts. The Netherlands is unique in combining relatively high endorsement of LGBTQI+ rights with a traditional labor market that often sorts women (in DSC) into part time jobs. In other contexts, the difference between birth and non-birth mothers in FSSC may be less pronounced, or non-birth mothers in FSSC may not be able to mirror the income developments of fathers in DSC.

This study makes a twofold contribution to the existing literature. First, it adds to the literature on child penalties for same-sex female parents, especially because researchers have so far rarely considered the female same-sex birth mother separately from the female partner who did not give birth (Baumle, 2009; Waite & Denier, 2015). Second, viewed from a broader perspective, this study contributes to our knowledge of biological versus societal reasons for parental income development. The findings indicate that the wage development of FSSC non-birth mothers is fairly similar to that of DSC fathers but not to birth mothers in either type of couple, and that there is no difference in wage development between FSSC birth mothers and DSC mothers. On the one hand, one might expect FSSC non-birth mothers to comply with societal expectations of a mother, but this study does not support that assumption. On the other hand, it might be argued that by being a partner to a biological mother, the non-birth mother assumes other expectations as a provider and assumes the traditional male-gendered economic responsibility for her partner and child. This would align with the idea that people take account of their situation and relationship and act accordingly (Sabia et al., 2017). The overall results support the Human Capital approach. Considering the differences they reveal between birth and non-birth mothers, it might be prudent to reconfigure the male breadwinner model into a more gender-neutral breadwinner model in which partners' roles are shaped by the situation they are in as a birth mother or as a birth mother's partner.

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## Data availability statement

The System of Social-statistical Datasets (SSD) microdata can be accessed via the following link: <https://www.cbs.nl/en-gb/onze-diensten/customised-services-microdata/microdata-conducting-your-own-research>. The SSD microdata was analysed via a secure internet connection (<https://www.cbs.nl/en-gb/our-services/customised-services-microdata/microdata-conducting-your-own-research/rules-and-sanctioning-policy>) after receiving authorization from Statistics Netherlands (CBS). For further details regarding CBS microdata access, please send an email to: [microdata@cbs.nl](mailto:microdata@cbs.nl).

## References

- Akerlof, G.A., & Kranton, R.E. (2000). Economics and identity. *The Quarterly Journal of Economics*, 115(3): 715-753. <https://doi.org/10.1162/003355300554881>

- Álvarez Bernardo G., Romo Avilés, N., & García Berbén, A.B. (2018). Doing gender in Spanish same-sex couples: The distribution of housework and childcare. *Journal of Gender Studies*, 27(6): 672-682. <https://doi.org/10.1080/09589236.2017.1287067>
- Andresen, M.E., & Nix, E. (2022). *Can the child penalty be reduced? Evaluating multiple policy interventions* (No. 983). Discussion Papers. <http://hdl.handle.net/10419/268059> [retrieved February 1, 2023]
- Anderson, D.J., Binder, M., & Krause, K. (2003). The motherhood wage penalty revisited: Experience, heterogeneity, work effort, and work-schedule flexibility. *ILR Review*, 56(2): 273-294. <https://doi.org/10.1177/001979390305600204>
- Avellar, S., & Smock, P.J. (2003). Has the price of motherhood declined over time? A cross-cohort comparison of the motherhood wage penalty. *Journal of Marriage and Family*, 65(3): 597-607. <https://doi.org/10.1111/j.1741-3737.2003.00597.x>
- Badgett, M.L., Carpenter, C.S., & Sansone, D. (2021). LGBTQ economics. *Journal of Economic Perspectives*, 35(2): 141-170. <https://doi.org/10.1257/jep.35.2.141>
- Baert, S. (2014). Career lesbians: Getting hired for not having kids? *Industrial Relations Journal*, 45(6): 543-561. <https://doi.org/10.1111/irj.12078>
- Baumle, A.K. (2009). The cost of parenthood: Unraveling the effects of sexual orientation and gender on income. *Social Science Quarterly*, 90(4): 983-1002. <https://doi.org/10.1111/j.1540-6237.2009.00673.x>
- Becker, G.S. (1985). Human capital, effort, and the sexual division of labor. *Journal of Labor Economics*, 3(1, Part 2): S33-S58. <https://doi.org/10.1086/298075>
- Becker, G. S. (1991). *A treatise on the family*. Cambridge, MA: Harvard.
- Bielby, D.D.V., & Bielby, W.T. (1984). Work commitment, sex-role attitudes, and women's employment. *American Sociological Review*, 49(2): 234-247. <https://doi.org/10.2307/2095573>
- Boye, K., & Evertsson, M. (2020). Who gives birth (first) in female same-sex couples in Sweden? *Journal of Marriage and Family*, 83(4): 925-941. <https://doi.org/10.1111/jomf.12727>
- Brewster, M.E. (2017). Lesbian women and household labor division: A systematic review of scholarly research from 2000 to 2015. *Journal of Lesbian Studies*, 21(1): 47-69. <https://doi.org/10.1080/10894160.2016.1142350>
- Budig, M.J., & England, P. (2001). The wage penalty for motherhood. *American Sociological Review*, 66(2): 204-225. <https://doi.org/10.2307/2657415>
- Bygren, M., Erlandsson, A., & Gähler, M. (2017). Do employers prefer fathers? Evidence from a field experiment testing the gender by parenthood interaction effect on callbacks to job applications. *European Sociological Review*, 33(3): 337-348. <https://doi.org/10.1093/esr/jcx051>
- Ciano-Boyce, C., & Shelley-Sireci, L. (2003). Who is mommy tonight: Lesbian parenting issues. *Journal of Homosexuality*, 43(2): 1-13. [https://doi.org/10.1300/j082v43n02\\_01](https://doi.org/10.1300/j082v43n02_01)
- Correll, S. J., Benard, S., & Paik, I. (2007). Getting a job: Is there a motherhood penalty? *American Journal of Sociology*, 112(5): 1297-1338. <https://doi.org/10.1086/511799>
- Davis, S. N., & Greenstein, T. N. (2009). Gender ideology: Components, predictors, and consequences. *Annual Review of Sociology*, 35: 87-105. <https://doi.org/10.1146/annurev-soc-070308-115920>
- Downing, J. B., & Goldberg, A. E. (2011). Lesbian mothers' constructions of the division of paid and unpaid labor. *Feminism & Psychology*, 2(1): 100-120. <https://doi.org/10.1177/0959353510375869>
- Drydakos, N. (2022). Sexual orientation and earnings: A meta-analysis 2012 – 2020. *Journal of Population Economics*, 35(2): 409-440. <https://doi.org/10.1007/s00148-021-00862-1>
- Evertsson, M. (2013). The importance of work: Changing work commitment following the transition to motherhood. *Acta Sociologica*, 56(2): 139-153. <https://doi.org/10.1177/0001699312466177>
- Evertsson, M., Boye, K., & Erman, J. (2018). Fathers on call? A study on the sharing of care work between parents in Sweden. *Demographic Research*, 39: 33-60. <https://doi.org/10.4054/DemRes.2018.39.2>
- Evertsson, M., & Boye, K. (2018). The transition to parenthood and the division of parental leave in different-sex and female same-sex couples in Sweden. *European Sociological Review*, 34(5): 471-485. <https://doi.org/10.1093/esr/jcy027>
- Evertsson, M., Jaspers, E., & Moberg, Y. (2020). Parentalization of same-sex couples: Family formation and leave rights in five Northern European countries. In R. Nieuwenhuis & W. Van Lancker (Eds.), *The Palgrave Handbook of Family Policy* (pp. 397-428). Palgrave Macmillan. <https://doi.org/10.1007/978-3-030-54618-2>

- Felfe, C. (2012). The motherhood wage gap: What about job amenities? *Labor Economics*, 19(1): 59-67. <https://doi.org/10.1016/j.labeco.2011.06.016>
- Filer, R. K. (1985). Male-female wage differences: The importance of compensating differentials. *ILR Review*, 38(3): 426-437. <https://doi.org/10.1177/001979398503800309>
- Fuller, S. (2017). Segregation across workplaces and the motherhood wage gap: Why do mothers work in low-wage establishments? *Social Forces*, 96(4): 1443-1476. <https://doi.org/10.1093/sf/sox087>
- Gangl, M., & Ziefle, A. (2009). Motherhood, labor force behavior, and women's careers: An empirical assessment of the wage penalty for motherhood in Britain, Germany, and the United States. *Demography*, 46(2): 341-369. <https://doi.org/10.1353/dem.0.0056>
- Glass, J. (2004). Blessing or curse? Work-family policies and mother's wage growth over time. *Work and Occupations*, 31(3): 367-394. <https://doi.org/10.1177/0730888404266364>
- Hennekam, S.A., & Ladge, J.J. (2017). When lesbians become mothers: Identity validation and the role of diversity climate. *Journal of Vocational Behavior*, 103: 40-55. <https://doi.org/10.1016/j.jvb.2017.08.006>
- Hequembourg, A. (2004). Unscripted motherhood: Lesbian mothers negotiating incompletely institutionalized family relationships. *Journal of Social and Personal Relationships*, 21(6): 739-762. <https://doi.org/10.1177/0265407504047834>
- Hodges, M.J., & Budig, M.J. (2010). Who gets the daddy bonus? Organizational hegemonic masculinity and the impact of fatherhood on earnings. *Gender & Society*, 24(6): 717-745. <https://doi.org/10.1177/0891243210386729>
- Jaspers, E., & Verbakel, E. (2013). The division of paid labor in same-sex couples in the Netherlands. *Sex roles*, 68(5-6): 335-348. <https://psycnet.apa.org/doi/10.1007/s11199-012-0235-2>
- Kahn, J.R., García-Manglano, J., & Bianchi, S.M. (2014). The motherhood penalty at midlife: Long-term effects of children on women's careers. *Journal of Marriage and Family*, 76(1): 56-72. <https://doi.org/10.1111/jomf.12086>
- Kalleberg, A.L. (2000). Nonstandard employment relations: Part-time, temporary and contract work. *Annual Review of Sociology*, 26(1): 341-365. <https://doi.org/10.1146/annurev.soc.26.1.341>
- Kalist, D.E. (2008). Does motherhood affect productivity, relative performance, and earnings? *Journal of Labor Research*, 29(3): 219-235. <https://doi.org/10.1007/s12122-007-9034-x>
- Kelley, J. (2001). Attitudes towards homosexuality in 29 nations. *Australian Social Monitor*, 4(1): 15-22. <http://hdl.handle.net/1885/93208> [retrieved February 1, 2023]
- Kmec, J.A. (2011). Are motherhood penalties and fatherhood bonuses warranted? Comparing pro-work behaviors and conditions of mothers, fathers, and non-parents. *Social Science Research*, 40(2): 444-459. <https://doi.org/10.1016/j.ssresearch.2010.11.006>
- Koslowski, A.S. (2010). Working fathers in Europe: Earning and caring. *European Sociological Review*, 27(2): 230-245. <https://doi.org/10.1093/esr/jcq004>
- Lam, S.S., Ng, T.W., & Feldman, D.C. (2012). The relationship between external job mobility and salary attainment across career stages. *Journal of Vocational Behavior*, 80(1): 129-136. <https://psycnet.apa.org/doi/10.1016/j.jvb.2011.05.002>
- Looze, J. (2014). Young women's job mobility: The influence of motherhood status and education. *Journal of Marriage and Family*, 76(4): 693-709. <https://doi.org/10.1111/jomf.12122>
- Machado, W., & Jaspers, E. (2023). Money, birth, gender: Explaining unequal earnings trajectories following parenthood. *Sociological Science*, 10: 429-453. <https://doi.org/10.15195/v10.a14>
- McNair, R., & Dempsey, D. (2018). Same-sex attracted parents' emotional transitions to parenthood. In R. Kokanović, P. A. Michaels, & K. Johnston-Ataata (Eds.), *Paths to Parenthood* (pp. 95-118). Palgrave Macmillan. [https://doi.org/10.1007/978-981-13-0143-8\\_5](https://doi.org/10.1007/978-981-13-0143-8_5)
- Misra, J., Budig, M. J., & Moller, S. (2007). Reconciliation policies and the effects of motherhood on employment, earnings and poverty. *Journal of Comparative Policy Analysis*, 9(2): 135-155. <https://doi.org/10.1080/13876980701311588>
- Nitsche, N., & Grunow, D. (2016). Housework over the course of relationships: Gender ideology, resources, and the division of housework from a growth curve perspective. *Advances in Life Course Research*, 29: 80-94. <https://doi.org/10.1016/j.alcr.2016.02.001>
- Oesch, D., Lipps, O., & McDonald, P. (2017). The wage penalty for motherhood: Evidence on discrimination from panel data and a survey experiment for Switzerland. *Demographic Research*, 37: 1793-1824. <https://doi.org/10.4054/demres.2017.37.56>

- Peplau, L.A., & Fingerhut, A. (2004). The paradox of the lesbian worker. *Journal of Social Issues*, 60(4): 719-735. <https://doi.org/10.1111/j.0022-4537.2004.00382.x>
- Ridgeway, C.L., & Correll, S.J. (2004). Motherhood as a status characteristic. *Journal of Social Issues*, 60(4): 683-700. <https://doi.org/10.1111/j.0022-4537.2004.00380.x>
- Rosenbaum, P. (2019). *The family earnings gap revisited: A household or a labor market problem?*. SSRN. <https://doi.org/10.2139/ssrn.3314102>
- Sabia, J.J., Wooden, M., & Nguyen, T.T. (2017). Sexual identity, same-sex relationships, and labor market dynamics: New evidence from longitudinal data in Australia. *Southern Economic Journal*, 83(4): 903-931. <https://doi.org/10.1002/soej.12181>
- Sigle-Rushton, W., & Waldfogel, J. (2007). Motherhood and women's earnings in Anglo-American, Continental European, and Nordic countries. *Feminist Economics*, 13(2): 55-91. <https://doi.org/10.1080/13545700601184849>
- Staff, J., & Mortimer, J.T. (2012). Explaining the motherhood wage penalty during the early occupational career. *Demography*, 49(1): 1-21. <https://doi.org/10.1007/s13524-011-0068-6>
- Sutphin, S. T. (2010). Social exchange theory and the division of labor in same-sex couples. *Marriage & Family Review*, 46(3): 191-206. <https://psycnet.apa.org/doi/10.1080/01494929.2010.490102>
- Taniguchi, H. (1999). The timing of childbearing and women's wages. *Journal of Marriage and the Family*, 61(4): 1008-1019. <https://psycnet.apa.org/doi/10.2307/354020>
- Thornton, R. J., & Innes, J. T. (1989). Interpreting semilogarithmic regression coefficients in labor research. *Journal of Labor Research*, 10(4): 443-447. <https://doi.org/10.1007/BF02685335>
- Van der Vleuten, M., Jaspers, E., & Van der Lippe, T. (2020). Same-sex couples' division of labor from a cross-national perspective. *Journal of GLBT Family Studies*, 17(2): 1-18. <https://doi.org/10.1080/1550428X.2020.1862012>
- Waite S. & Denier N. (2015). Gay pay for straight work: Mechanisms generating disadvantage. *Gender & Society* 29(4): 561-588. <https://doi.org/10.1177/0891243215584761>

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## Information in German

### Deutscher Titel

Stundenlöhne von Eltern in weiblich-gleichgeschlechtlichen und andersgeschlechtlichen Paaren: Welche Rollen spielen das Geschlecht des Partners und der Arbeitgeber

### Zusammenfassung

**Fragestellung:** Diese Studie untersucht den Zusammenhang zwischen Elternschaft und Gehalt, wobei sowohl die Rolle des Geschlechts des Partners als auch der Einfluss des Arbeitgebers auf die Lohnentwicklung von leiblichen – und nichtleiblichen Müttern und Vätern berücksichtigt wird.

**Hintergrund:** Die Studie bietet eine neuartige Untersuchung der Frage, ob das Geschlecht des Partners Löhne leiblicher Mütter beeinflusst, wozu niederländische Registerdaten verwendet werden.

**Methode:** OLS-Regression, Heckman-Korrektur und Fixed-Effects Modelle werden angewandt, um alle niederländischen Paare zu untersuchen, deren erstes Kind zwischen 2008 und 2014 in den Niederlanden geboren wurde. In diesem Zusammenhang wird eine Periode von zwei Jahren vor der Geburt bis zwei Jahren nach der Geburt untersucht.

**Ergebnisse:** In Übereinstimmung mit der Humankapitaltheorie zeigen die Ergebnisse eine konsistente und ungünstige Lohnentwicklung für Mütter, unabhängig davon, ob sie in gleichgeschlechtlichen oder andersgeschlechtlichen Paaren leben. Die Lohnentwicklung von nicht leiblichen Müttern in weiblich-gleichgeschlechtlichen Paaren ähnelt der von Vätern, die im Vergleich zu leiblichen Müttern eine positivere Entwicklung aufweisen. Außerdem zeigt die Analyse, dass Arbeitgeber nicht zwischen leiblichen- und nichtleiblichen Müttern unterscheiden, was darauf hindeutet, dass sich die biologischen Auswirkungen, die mit der Mutterschaft verbunden sind, auf die Löhne der leiblichen Mütter auswirken, während die Löhne ihrer männlichen und weiblichen Partner nicht sinken.

**Schlussfolgerung:** Die Studie leistet einen Beitrag zur bestehenden Literatur in der Familiensoziologie, indem sie den Bedarf an politischen Maßnahmen und Interventionen hervorhebt, die sich mit den spezifischen Herausforderungen befassen, mit denen leibliche Mütter auf dem Arbeitsmarkt konfrontiert sind.

**Schlagwörter:** Diskriminierung, Arbeitsmarkt, Einkommen, Mutterschaft, Elternschaft, gleichgeschlechtliche Paare, Einkommensnachteil, Registerdaten

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