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Abstract:
In the current paper, we investigate within-couple inequality in earnings using Norwegian register data on married and cohabiting couples. We are particularly interested in assessing whether the negative relation between children and women's relative earnings changed during the study period 2005 to 2014. In this period, work-family policy measures meant to facilitate mothers' employment and promoting fathers' family involvement were strengthened, and there was a sharp increase in women's level of education. Controlling for demographic and socioeconomic variables, results showed that women on average still earn less than their male partners and that the presence of small children in the household was negatively related to women's earnings. However, results from interaction models showed that the negative association between having young children and women's relative earnings was reduced during the study period. Additional analyses confirmed that this latter finding was mainly due to an income reduction among new fathers.

Keywords: Women's relative earnings; Parenthood; Cohabitation; Marriage; Family policy; Gender equality

JEL classification: D13, J12, J13, J16

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Sammendrag

Tidligere studier har funnet at kvinner bidrar mindre til parets samlede inntekt enn menn, og at kvinners relative inntekt synker når par får barn. Få studier har så langt undersøkt om denne negative sammenhengen mellom barn og kvinners relative inntekt har endret seg over tid, og de fleste tidligere studier av kvinners relative inntekt har vært begrenset til gifte par eller samboerpar med felles barn. I denne artikkelen bruker vi norske registerdata over alle gifte og samboende toinntektspar i alderen 25 til 59 år og undersøker kvinners bidrag til parets samlede pensjonsgivende inntekt. Vi er særlig interessert i å undersøke om betydningen av å ha barn endret seg i perioden 2005 til 2014, en periode da familiepolitiske tiltak for å fremme mødres arbeidsdeltakelse og fedres innvolvering i familien ble styrket. I denne perioden var det også en klar økning i kvinners utdanningsnivå, også dette en utvikling som taler i retning av mindre inntektsulikhet innad i norske par. Resultater fra multivariate analyser bekreftet at kvinner i gjennomsnitt fortsatt har lavere pensjonsgivende inntekt enn sine mannlige partnere, og at kvinners andel av parets inntekt er lavere når det er små barn i husholdningen sammenliknet med foreldrepar med barn i skolealder og barnløse par. Våre resultater viser imidlertid at den negative sammenhengen mellom barn og kvinners relative inntekt ble redusert i perioden 2005 til 2014, en utvikling som i hovedsak skyldes at nye fedre i økende grad reduserer inntekten sin etter at de har fått barn.

1. Introduction

With the advance of the dual-earner family, many Western countries have witnessed a notable reduction in gender differences in paid and unpaid work in couples in recent decades. Still, women on average spend less time on paid employment and more time on domestic work than men (Anxo, Mencarini, Pailhé, Solaz, Tanturri, & Flood, 2011) and provide less of the couple's total income (Vitali & Arpino, 2016), and in most countries, parenthood still reinforces a traditional division of labour within the household. The Nordic countries with their well-developed policies supporting the combination of employment and childcare for men and women are often seen as ideal templates for promoting a gender equal dual-earner/dual-carer family model (Esping-Andersen, 2009; Gornick & Meyers, 2009). Correspondingly, several studies report a higher prevalence of equal-income couples in social-democratic welfare states than in conservative and liberal welfare states (Bianchi, Casper, & Peltola, 1999; Vitali & Arpino, 2016; Vitali & Mendola, 2014).

Similarly, the extent to which parenthood intensifies a traditional division of labour and augments women's economic dependence on their partner varies widely between countries (Anxo et al., 2011; Vitali & Arpino, 2016). Particularly, work-family policies that support mothers' employment are seen as important in order to lessen the impact of children on gender differences in time allocation (Cooke & Baxter, 2010; Dribe & Stanfors, 2009; Gornick & Meyers, 2009), and increase women's relative contribution to the household income (Sani, 2015; Stier & Mandel, 2009). Some also point at the role of policies targeted at fathers (Sani, 2015), as well as the diffusion of gender-egalitarian attitudes more broadly (Vitali & Arpino, 2016). We pose the following research question: Has the relation between parenthood and women's share of couples' income weakened in tandem with major family policy reforms since the mid-2000s in Norway?

A symmetrical family model where women and men share domestic duties and paid work equally between them, has been a central political goal in Norway since the 1970s (Ellingsæter & Leira, 2006; Wærness, 2015), and this family model has great support in the general population (Hellevik & Hellevik, 2012). Correspondingly, women's share of the couple's income has increased considerably in Norway in recent decades (Skrede & Wiik, 2012), and partners' income contributions are currently approximately equal in about half of all co-residential couples in the age group 25-59 years (Bergsvik, Kitterød, & Wiik, 2016). Nevertheless, the male partner's income still surpasses that of the female partner in about 45% of couples, and this is more common when there are young children in the household (Bergsvik et al., 2016; Skrede & Wiik, 2012). Despite a convergence in men's and women's time use in the labour market and the family in recent decades, parenthood still strengthens

gender-role specialization in couples (Kitterød & Rønsen, 2014) and intensifies the gender gap in earnings, wages, and career development in Norway (Barth, Hardoy, Schøne, & Østbakken, 2013; Cools & Strøm, 2014; Hardoy, Schøne, & Østbakken, 2017).

Using Norwegian register data on the total population of married and cohabiting couples born 1946 to 1989, with information on both partners' annual pensionable income in the period 2005 to 2014, we investigate to what extent parenthood, and particularly the presence of small children in the household, is related to within-couple inequality in earnings. Specifically, we add to the literature by assessing whether the importance of children changed in the period 2005-2014, a period in which work-family policy measures that facilitate women's employment and promote men's family involvement were substantially strengthened (Ellingsæter, 2016). Further, more Norwegian women have completed a tertiary education compared with men among those born in the cohorts after 1960 (Statistics Norway, 2018), altering the socioeconomic composition of couples.

1.1. Within-couple inequality in income – previous research

Since the 1980s, a growing body of research has explored women's and men's income contributions in couples, how this has changed over time and variations across countries, as well as the determinants and consequences of gender-equal and gender-unequal arrangements. For instance, in the U.S. Sørensen and McLanahan (1987) found that although few women earned as much as their partner, only a small minority was completely dependent on their husband's income. The main determinants of economic independency were women's labour supply and the amount of unearned income (e.g. social security). Another early U.S. study found that wives who out-earned their husbands typically held a male dominated occupation while the husband had a very flexible job, and there were no children in the household (Atkinson & Boles, 1984).

In tandem with the increase in women's employment and educational attainment in many Western countries, the number of studies on the prevalence and characteristics of equal-earning couples and couples in which wives out-earn their husbands has grown. These studies demonstrate an increasing prevalence of gender-equal earning arrangements, although women still rarely out-earn their partners and in a sizeable proportion of couples the male partner has substantially higher earnings than the female partner (Bianchi et al., 1999; Raley, Mattingly, & Bianchi, 2006; Skrede & Wiik, 2012; Vitali & Mendola, 2014). The small minority of couples in which the woman has the highest income is highly heterogeneous, comprising couples where the woman has a well-paid job and/or work long hours, as well as couples where the man has health limitations and/or an unstable labour market

position (Drago, Black, & Wooden, 2005; Oppenheimer, 1997; Raley et al., 2006; Vitali & Arpino, 2016; Winkler, McBride, & Courtney, 2005). A recent Norwegian study provides similar results (Bergsvik et al., 2016).

Considering that women now outnumber men in higher education in many Western countries and are also better educated than their partner in an increasing number of couples, researchers have been particularly interested in the breadwinning patterns of this latter couple type (Klesment & Van Bavel, 2017). Recent Norwegian data show that 38% of first-time mothers in cohorts born 1940 to 1964 had the same education level as the fathers, and that the share of parental couples in which the mother had the highest level of education increased from 19% for the earliest cohorts to 30% for the most recent ones (Kravdal & Rindfuss, 2008). Women in these couples may have a higher earning potential than their partner, though several factors may counteract such a development.

On one hand, female breadwinning still violates normative expectations in certain population subgroups (Klesment & Van Bavel, 2017; Tichenor, 1999). But most importantly, the persistent gender segregation in education and the labour market entails that highly educated women often earn less than their male counterparts, and women usually reduce their labour market activity more than men when children arrive (Cools & Strøm, 2014; Klesment & Van Bavel, 2017). However, analysing couples' income patterns in 27 countries in 2007 and 2011, Klesment and Van Bavel (2017) found that if a woman was better educated than her partner, this increased the odds of her earning more than him, and reduced the so-called "motherhood penalty" on women's relative earnings. Still, this "hypogamy bonus" is less pronounced in egalitarian countries than in countries with more conservative gender norms (Van Bavel & Klesment, 2017).

2. Parenthood and couples' earnings

The negative association between parenthood and women's relative earnings, is a consistent finding across countries and time periods (Bianchi et al., 1999; Klesment & Van Bavel, 2017; Sani, 2015; Stier & Mandel, 2009), though in the US parenthood was less predictive of the wives's provider role at the turn of the century than in previous decades (Raley et al., 2006). The three most common explanations for changing provider roles at the arrival of children are couple specialization, relative resources and the "doing gender-perspective". Differentiated gender roles have long been regarded a functional necessity for a stable family system (e.g. Parsons, 1949). Similarly, neoclassical economics argue that men specialize in paid labor and women in domestic production and reproduction in order to maximize the "family utility" (Becker, 1991). Even in egalitarian couples, gender role specialization

might be reinforced at the arrival of children due to small but nonetheless significant biological sex differences becoming more pronounced in the process of childbearing and child-rearing. The persistent gender wage gap further supports the rationality of a gender specific division of work (Becker, 1991). Connected to the gender wage gap and women's and men's earnings potential, some highlight each partners' options outside the family as decisive for their bargaining power over time use after the arrival of children (Angelov, Johansson & Lindahl, 2016).

Even when abandoning comparative advantages and biological arguments, there have traditionally been different societal expectations towards mothers and fathers as women have tended to act as caretakers and homemakers whereas men have worked outside the home (see also Haaland, Rege, Telle & Votruba, 2014). These gender roles might revive when becoming a parent. New parents might therefore be more prone to 'do gender' than those without children (West & Zimmermann, 1987). In addition, there is for sure selection into parenthood, and this selection varies over time. That is, childless women, among whom the highly educated are overrepresented (Rindfuss & Kravdal, 2008), may for example be particularly career oriented. We assume, however, that this selection argument is most relevant for women born before the cohorts of the "educational revolution" in Norway (i.e., women born before 1950).

Family policies directly alter the benefits of couple specialization and may accordingly change partners bargaining power and/or gradually also change typical gender roles. Several studies confirm that the design of a country's work-family policies is associated with mother's relative income. For instance, analysing women's economic contribution to the family in 21 countries in the 1990s, Stier and Mandel (2009) uncover that higher rates of childcare services, long maternity leave and the availability of part time work generally increase women's labour force participation and thereby their share of the couple's income. However, long maternity leave and the availability of part-time work may still maintain unequal working conditions and specialized earning patterns in dual-earner couples (Stier & Mandel, 2009).

Investigating whether women in eight European countries faced a reduction of relative earned income in the event of a childbirth in the mid-2000s, Sani (2015) finds that the motherhood penalty was largest in countries with generous family benefits, such as Sweden and Luxembourg, and smallest in countries without generous family benefits, such as Italy, Portugal and Spain. However, when family benefits are included in the measured income, the negative relation between children and women's relative earnings disappears. Hence, the extent to which work-family policies affect the relationship

between parenthood and the mother's share of the couple's income depends on the type of work-family policy studied and the income measure used. Stier and Mandel (2009) thus suggest exploring the effect of policies that affect men's working hours as well, such as restrictions on overtime work.

3. Work-family policy and practices in Norway

The three main ingredients in the Norwegian work-family policies; namely paid parental leave scheme with job protection, the childcare system, and the cash-for-childcare benefits, have undergone major changes in our study period (see Appendix A for an overview). In this period, elements promoting specialized family practices, such as the cash-for-childcare scheme, were gradually reduced, whereas the kindergarten coverage and the parental leave scheme, including some weeks reserved for each parent, were gradually extended. Both women and men are increasingly expected to pursue continuous labour market participation even when they have small children, and fathers are strongly encouraged to be more actively involved with their children (Ellingsæter, 2016).

Nevertheless, the family friendly policies in the Nordic welfare states, particularly the generous parental leaves and the availability of part-time work, may have some unintended consequences for women in the labour market. Examples include concentration of women in public sector-jobs, high part-time working rates among women, relatively few women in top positions in industry and commerce, and a persistent gender-gap in wages (Datta Gupta, Smith, & Verner, 2008; Mandel & Semyonov, 2006).

The paid parental leave in Norway has been considerably extended since the 1990s and as of 2014 it was 49/59 weeks with 100/80 percent wage compensation.[1] Three weeks before and six weeks after delivery are reserved for the mother. In 1993 the four-week fathers' quota was introduced, to strengthen the father-child-relationship and promote gender equality in family-related tasks as well as in the labour market (Brandth & Kvande, 2016). The fathers' quota was adjusted to 5/6/10/12/14/10 weeks in 2005/2006/2009/2011/2013/2014 (see Appendix A). Until 2009, the fathers' quota was extended by prolonging the total parental leave, whereas extensions thereafter partly or fully came at the expense of the shareable part.

Parental benefit entitlements require employment in 6 of the 10 months prior to take up with an income equivalent to half the National Insurance basic amount (G) (approximately 5,200 Euros).[2] If the mother does not fulfil this requirement, she receives a lump sum of approximately 6,650 Euros. Entitlement to the fathers' quota requires that both the father and the mother have earned parental

leave rights. Regarding the shareable leave (the weeks that are not reserved for either parent), fathers have independent parental leave rights and can draw parental benefit if the mother is occupied in employment, enrolled in education, or has severe health limitations.

Norwegian fathers' use of parental benefit has grown following each extension of the fathers' quota (Fougner, 2012) and also between the extensions (Dahl, Løken, & Mogstad, 2014). Currently, most eligible fathers make use of the quota, whereas the shareable part is mostly used by mothers (Kitterød, Halrynjo, & Østbakken, 2017). Several Norwegian studies report that fathers acquire improved parental skills while on parental leave (Brandth & Kvande, 2016, 2013). There is also evidence that the fathers' quota has a positive long-term effect on fathers' involvement with their children (Cools, Fiva, & Kirkebøen, 2015), and a negative effect on their income (Rege & Solli, 2013).

As for day care, there was long an unmet demand in Norway, particularly for the youngest children (see Appendix A). However, following a political agreement in 2003 on the expansion of the day care sector, the percentage of children in publicly subsidised day care grew rapidly. By the end of our study period (2014), 67% of children aged 1, 91% of children aged 2 and 97% of children aged 3-5 attended formal day care (Kitterød, 2016). Following a price cap reform in 2004, the price of formal day care was reduced. Consequently, socioeconomic differences in attendance were reduced (Ellingsæter, Kitterød, & Lyngstad, 2017).

In the late 1990s, a cash-for-childcare benefit was introduced to enable parents to spend more time with their children, obtain more flexibility in their childcare choices and distribute public transfers more equally between users and non-users of subsidized childcare (St.prp. no. 53 1997-98). Parents with children aged 1-2 who did not use state-funded childcare were entitled to the benefit and part-time users could have a reduced benefit. Since 2012 only parents with children below two years of age have been entitled to the benefit (see Appendix A). In 1999, the benefit was claimed for as many as three quarters of children aged 1-2 years, but over the years, the take-up rate has diminished and in 2014 parents claimed the benefit for only 23 percent of the children of an eligible age (Egge-Hoveid, 2015). Several studies report negative reform effects on mothers' labour supply both during and beyond the period when children are eligible for the benefit (Drange & Rege, 2013; Rønsen, 2009).

4. Women's and men's employment

Women's employment has risen sharply in the past decades in Norway. In 2014, 81% of women in the age group 25-54 years were gainfully employed compared with 86% of men. The comparable shares in 2005 were 76% (women) and 86% (men) (see Appendix B). Currently, 60% of women work full time, but only 10% work long hours (> 39 hours per week), and part-time work is still quite common. However, there are few full-time housewives in Norway (Kitterød & Rønsen, 2013). Unlike women, men in the age group 25-54 years rarely work part-time, but one in four works long hours. Interestingly, we note that the unemployment rate was low during our study period and did not increase dramatically following the economic crisis in 2008/2009 neither for women nor men (see Appendix B).

Women's and men's different working hours are partly related to the gender segregation in the Norwegian labour market, with women being overrepresented in the public sector and in education, health, and social work and men in the private sector and in manufacturing and finance (Reisel & Teigen, 2014). Though public-sector jobs are often regarded as more family friendly than private sector jobs, female-dominated professions in the service sector are often lower paid than male-dominated professions (Reisel & Teigen, 2014). Mothers are more likely to work in the public sector than childless women, and the difference increases with the number of children and is more pronounced in typical childbearing ages (Schøne, 2015). Women are also underrepresented in management positions in Norway, and the gender gap increases at the arrival of the first child (Hardoy et al., 2017). However, women now enter paid work faster after childbirth than in the 1990s (Rønsen & Kitterød, 2015), and only women with children under the age of two now spend less time in employment than women with teenagers and those with no children in the household (Kitterød, 2016). Also, men with children under the age of two spend somewhat less time in employment than those with teenagers or no children at home, but this is a quite recent pattern in Norway (Kitterød, 2016).

5. Hypotheses

Based on previous research and given the lingering gendered nature of the labour market, we expect to find that Norwegian women on average still earn less than their male partners (Hypothesis 1). Next, regarding parenthood, we expect particularly the presence of small children in the household to intensify the within-couple inequality in earnings. That is, women in couples with small children below school-ages have lower relative earnings than their counterparts with older children and the childless (Hypothesis 2a). However, given the comprehensive expansion of the fathers' quota in our study period, coupled with the rise in children's daycare attendance and diminished use of the cash for

care benefit, we expect to find that the motherhood penalty on women's relative earnings has been reduced over time (Hypothesis 2b). The fact that the presence of small children currently is less negatively related to women's employment than previously, while fathers now scale back their employment somewhat when they have small children, substantiates this expectation. To clarify, we expect the reduced gap in mothers' and fathers' earnings during the study period to be driven by two parallel developments, namely a weakened association of having young children on female earnings (Hypothesis 3a) and an emerging negative association between fatherhood and male earnings during the study period (Hypothesis 3b).

6. Method

6.1. Data and sample

We utilize rich data from Norwegian administrative registers covering yearly observations for the period 2005-2014. This period was chosen because cohabiting couples without common children can be identified in the administrative registers from 2005 onwards. The sample comprises women and men in the age-group 25-59 years who are registered living with a partner (married or cohabiting). Given our interest in dual-earner couples, and the heterogenenity of those with no income, we focus on couples where both partners at least have a pensionable income equivalent to the National Insurance basic amount (G) (approximately 10,400 Euros in 2014). In total, our sample includes 6,048,429 couple observations for the whole study period and 615,897 unique couples in 2014.[3]

Using a system of universal ID numbers, we linked these household data, including union status and age and number of children in the household, to register data on each partner's sociodemographic characteristics such as pensionable income, education (level *and* field), and country of birth.

6.2. Dependent variable and analytical strategy

Our main dependent variable, *women's share of the couple's income*, was measured continuously as her percentage of the couple's total pensionable income. Pensionable income is the sum of labour income and income from self-employment, and transfers replacing such incomes, such as parental benefits, sickness benefits and benefits for occupational rehabilitation. These benefits are included because they are important for household income and pension rights as well as sick-leave or unemployment benefit rights. Given the continuous dependent variable, we used ordinary least squares regression (OLS). We start by analysing the impact of parenthood on women's relative earnings in 2014, focusing on the role of having very small children (i.e., 0-1 years). Next, to examine possible

secular changes in women's relative earnings, we used data covering the entire study period (2005-2014). To investigate whether the within-couple earning inequality was reduced among new parents across the study period, we interacted calendar year and age of the youngest child in the household. To answer our last hypotheses about the different developments of mothers' and fathers' incomes during the study period, we ran the same models for estimating average marginal effects on women's and men's absolute incomes respectively.

6.3. Independent variables

Age of the youngest child in the household and calendar year (2005-2014) constitute our explanatory variables. We distinguish between couples whose youngest child was 0-1 years, 2-3 years, 4-5 years, 6-19 years, and those with no children at all or children living outside the household (reference). Further, we included a continuous variable measuring the *number of children 0-19 years in the household*. *Calendar Year* was included in the analyses as a set of dummies.

To account for changing compositions of couples during the study period as well as selection into parenthood by individual and couple-level characteristics, we included a set of covariates that are associated with income dynamics in couples and our explanatory variables (e.g., Raley et al., 2006; Sani, 2015; VanBavel & Klesment, 2017). First, we measure the *union status of the couple*, with values married (0) and cohabiting (1). Next, *women's level of education* was grouped into the following four categories: 1) primary school (≤10 years), 2) secondary school (11-13 years) (reference), 3) short university education (14–17 years), and 4) long university education (≥18 years). Regarding the *relative education of couples*, we differentiate between couples where the partners have the same level of education (1) and couples where either the male (2) or the female (3) partner has most education. Further, *type of education* (both partners) reflects which type of segment in the labour market a specific educational qualification fits best.[4] This variable has the following six categories 1) elementary or secondary education without occupational specialisation and missing, 2) female-dominated occupations in public sector, 3) female-dominated occupations in private sector, 4) gender-mixed occupations with little occupation specificity, 5) gender-mixed occupations with high occupation specificity, and 6) male-dominated occupations, mostly in the private sector.

Partners' *age* was measured in years at the end of each calendar year. We also include squared terms to capture possible nonlinearities. We further included partners' *country of birth* separating between those born in Norway or in another country in the EU/EEA region plus the United States, Canada, Australia, and New Zealand on the one hand, and those born in European countries outside the

EU/EEA region plus Asia, Africa, Latin America, and remaining countries in Oceania, on the other. The variable has four categories: 1) Both partners born in the EU/EEA region etc. (reference), 2) she born in Asia, Africa etc. and he born in the EU/EEA-region etc., 3) he born in Asia, Africa etc. and she born in the EU/EEA region etc., and 4) both born in Asia, Africa etc.

7. Results

Descriptive statistics for the analytic sample are presented in Table 1. In 2014, 13% of these co-residential dual earner couples aged 25-59 had children below 2 years, whereas another 19% had children in the age group 2-5 years. Most couples (40%) had children in school ages and above, whereas 27.5% of couples were childless or had adult children not living in the household. We further note that the average number of children in our sample was 1.4 and that 33% of couples were cohabiting. Regarding women's level of education, 13% had completed a compulsory education and 34% were secondary educated. 38% had completed a lower level tertiary education, whereas 12% had completed a long university education. We further see from Table 1 that 44% of couples were educational homogamous, and that the woman had more education than the man in most educationally heterogamous couples.

Regarding type of education, 23% of men and women alike had lower educations with no occupational specialization. Among men, we find the highest share with educations qualifying for occupations in male dominated profession (46.5%). Women, on the other hand, most often held educations targeted at female dominated occupations in the public sector (29.2%) and gender-mixed specialized occupations (23.8%). Next, women were on average 40.9 years old compared with 43.3 years among men. 90% of couples consisted of partners born in Norway or another EU/EEA-country.

Table 1. Descriptive statistics of variables used. Married and cohabiting dual-earner couples aged 25-59 years. 2014

Variable	*% / M*	*N*
Youngest child in household		
0-1 year	13.0	80,273
2-3 years	10.9	67,117
4-5 years	8.3	51,145
6-19 years	40.3	248,249
No child(ren) living in household	27.5	169,113
Number of child(ren) 0-19 years	1.39	615,897
Union status		
Married	67.2	413,883
Cohabiting	32.8	202,014
Woman's education level		
Primary	13.4	82,273
Secondary	34.2	210,536
University, short	37.9	233,531
University, long	12.5	76,894
Missing	2.1	12,663
Couple's education		
Homogamous	43.9	270,177
He<her	31.0	191,183
He>her	21.7	133,675
Missing	3.4	20,862
Woman's type of education		
Lower, no specialization / missing	23.4	143,937
Female dominated, public sector	29.2	179,682
Female dominated, private sector	9.1	56,070
Gender-mixed, no specialization	6.2	38,301
Gender-mixed, specialization	23.8	146,573
Male-dominated	8.3	51,334
Man's type of education		
Lower, no specialization / missing	23.3	143,256
Female dominated, public sector	5.7	34,972
Female dominated, private sector	4.8	29,750
Gender-mixed, no specialization	4.5	27,855
Gender-mixed, specialization	15.2	93,572
Male-dominated	46.5	286,492
Woman's age	40.9	615,897
Man's age	43.3	615,897
Partners' country of birth		
Both EU/EEA-region etc.	90.0	554,200
She Asia, Africa etc., he EU/EEA-region etc.	3.8	23,098
He Asia, Africa etc., she EU/EEA-region etc.	1.7	10,549
Both Asia, Africa etc.	4.6	28,050
N		615,897

As shown in Table 2, there was a sharp increase in the incomes of women as well as men during the study period. Still, the increase from 2005 to 2014 was higher for women (33%) than for men (24%). Further, among women, mothers with children in school ages and above had the highest income increase (37%). Conversely, mothers with children below 2 years (30%) as well as women without children living in the household (28%) displayed the lowest increase. Among men we see the same

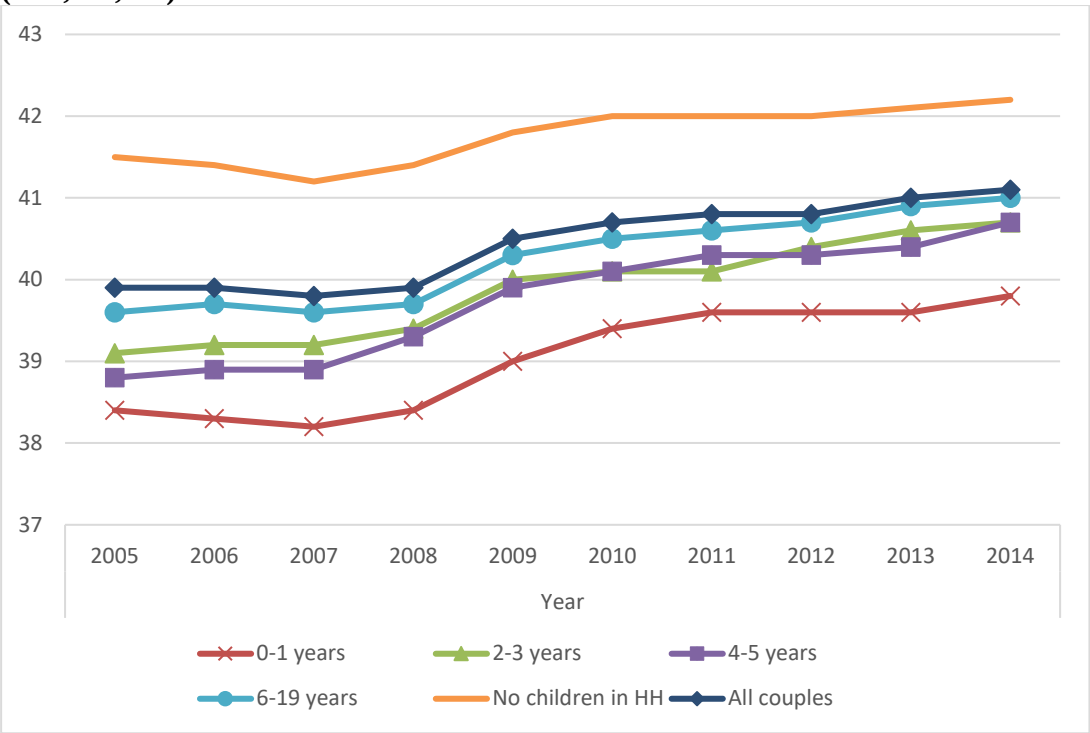
development across the study period: Fathers whose youngest resident children were in school ages and above displayed the highest income increase (26%) whereas their counterpart with children below 2 years (21%) as well as those without resident children (22%) had the lowest. Note that parental leave benefits are included in our income measure, and that these benefits substitute some of the income of those with infants.

Table 2. Women's and men's yearly mean income 2005-2014, by age of the youngest resident child. Fixed 2014 NOK. Married and cohabiting dual-earner couples aged 25 to 59

	Income per year										% change
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2005-2014
Women											
0-1 year	300,178	308,342	326,485	342,032	352,126	354,046	368,227	380,049	385,823	390,313	30
2-3 years	315,411	327,424	350,090	366,056	376,208	378,021	389,499	404,750	413,944	418,673	33
4-5 years	317,896	328,445	352,222	370,436	383,449	385,443	401,956	415,960	423,169	429,812	35
6-19 years	336,821	346,494	369,680	387,202	398,573	402,501	420,712	438,686	450,879	460,295	37
No children	336,021	341,969	361,543	375,399	383,403	385,771	399,614	413,131	422,102	429,157	28
All	328,254	336,939	358,367	374,455	384,693	387,458	403,016	418,342	428,122	435,557	33
Men											
0-1 year	502,838	515,000	552,290	574,604	572,887	566,874	582,954	600,714	608,010	609,966	21
2-3 years	513,453	533,707	565,465	590,650	587,242	584,761	604,874	619,580	627,408	631,953	23
4-5 years	524,386	537,035	578,571	600,461	603,603	598,978	619,667	638,976	649,124	654,309	25
6-19 years	550,783	559,392	599,398	624,470	626,005	625,117	650,666	673,637	686,173	696,582	26
No children	504,526	511,182	544,665	563,135	564,853	561,455	583,136	601,347	611,603	617,788	22
All	525,026	535,285	572,639	595,380	596,317	593,549	615,731	635,474	646,002	653,104	24
N	586,374	590,201	595,622	602,638	605,701	609,363	612,310	614,006	616,317	615,897	6,048,429

Regarding women's share of couples' total income; we see from Figure 1 that women on average contributed more in 2014 than in 2005. More precisely, women's share of the household income increased with 1.2 percentage points over the study period, from 39.9% in 2005 to 41.1% in 2014. Separating between couples with and without children, we further note from Figure 1 that the increase in women's share of couples' income was slightly larger among couples with children below 2 years than among couples with children in school ages and above and the childless. Notwithstanding the overall increase in women's income contribution, the results are in line with our first hypothesis claiming that women on average still earn less than their male partners.

Figure 1. Women's share of the couple's income, 2005-2014, by age of the youngest resident child. Fixed 2014 NOK. Married and cohabiting dual-earner couples aged 25 to 59 (*N*=6,048,429)



7.1. Multivariate results 2014

Results from multivariate models for dual-earner marital and cohabiting couples in 2014 are presented in Table 3. First, as shown in Model 1, in 2014 women in couples whose youngest child was 1 year or younger contributed with 2.4 percentage points less to couples' total income than women without children in the household. As expected, the negative association between parenthood and women's relative earnings was less negative the older the youngest child was. For instance, among couples where the youngest child was 6-19 years old, women on average contributed with 1.2 percentage points less of the household income compared with their childless counterparts.

Table 3. Multivariate models of women's relative income. OLS. Married and cohabiting dual-earner couples aged 25 to 59. 2014

	Model 1		Model 2	
Variable	B	SE	B	SE
Youngest child in household				
0-1 year	-2.39	0.05	-1.64	0.07
2-3 years	-1.58	0.06	-0.58	0.07
4-5 years	-1.57	0.06	-0.38	0.08
6-19 years	-1.22	0.04	(-0.10)	0.06
No child(ren) living in household	Ref		Ref	
Number of child(ren) 0-19 years			-0.76	0.02
Union status				
Married			-1.65	0.04
Cohabiting			Ref	
Woman's education level				
Primary			0.45	0.07
Secondary			Ref	
University, short			1.39	0.05
University, long			3.44	0.06
Missing			-4.46	0.18
Couple's education				
Homogamous			Ref	
He<her			3.23	0.04
He>her			-3.81	0.05
Woman's type of education				
Lower, no specialization / missing			Ref	
Female dominated, public sector			-0.53	0.07
Female dominated, private sector			-0.38	0.07
Gender-mixed, no specialization			-1.13	0.09
Gender-mixed, specialization			0.89	0.07
Male-dominated			2.16	0.08
Man's type of education				
Lower, no specialization / missing			Ref	
Female dominated, public sector			4.24	0.08
Female dominated, private sector			0.33	0.08
Gender-mixed, no specialization			3.82	0.09
Gender-mixed, specialization			-1.35	0.06
Male-dominated			-1.71	0.05
Woman's age			1.23	0.02
Woman's age squared			-0.01	0.00
Man's age			-0.92	0.02
Man's age squared			0.01	0.00
Partners' country of birth				
Both EU/EEA-region etc			Ref	
She Asia, Africa etc., he EU/EEA etc.			-2.52	0.08
He Asia, Africa etc., she EU/EEA etc.			4.87	0.12
Both Asia, Africa etc.			3.10	0.08
Constant	42.24	0.03	36.74	0.44
N	615,897		615,897	

Note: Estimates not in brackets p < .0001

Including relevant demographic and socioeconomic variables in Model 2, the negative association between the presence of children in the household and women's relative earnings persisted. On average, each child in a household (0-19 years) was associated with a 0.76 percentage points lower

female income share. In addition, controlling for the number of children, union type, women's education, couples' relative education, his and her type of education, age, and partners' global region of origin, the presence of a small child below 2 years in the household was associated with a 1.6 percentage points lower female income share. Mothers with a youngest child in the age group 2-3 years and 4-5 years had respectively 0.6 and 0.4 percentage points lower relative incomes. Taken together, these results are in accordance with Hypothesis 2a claiming that women in couples with small children have lower relative earnings than their counterparts with older children and those without resident children.

Regarding the other variables included in Model 2 in Table 3, we first note that in 2014 married women contributed significantly less to the household income than their cohabiting counterparts. Not surprising, university educated women had earnings more similar to their male partners than high school educated women. Regarding couple's education, the results for 2014 confirm that when the woman had completed a higher education than her partner, she on average had a 3.2 percentage points higher income share than women in educational homogamous couples. In couples where he had a higher education than her, on the other hand, she contributed with 3.8 percentage points less, confirming that both partners' educational level is an important factor for within-couple income inequality. The same holds for type of education. Women with educations qualifying for female dominated professions as well as gender mixed non-specialized occupations had significantly lower relative earnings than their counterparts with lower educations with no occupational specialization. Women who had completed educations targeted at male dominated professions, on the other hand, had 1.8 percentage points higher relative earnings, net of the other variables included. Conversely, if the man held an education qualifying for a female dominated profession, especially in the public sector, this was related to a statistically significant higher relative income of the woman. If he held an education targeted at jobs in male dominated professions or specialized gender mixed occupations, this was negatively related to the woman's relative income.

7.2. Multivariate results 2005-2014

In Models 3 and 4 of Table 4 data for the years 2005 to 2014 are used. In Model 3 we only include the variable measuring the age of the youngest child and calendar year. As can be seen from this baseline model, there was a negative relation between having small children in the household and women's relative earnings for the whole study period. From 2009 on women's relative income was significantly higher than it had been in 2005. Including relevant demographic and socioeconomic variables in Model 4, differences between the years were modified, confirming that part of the general increase in

women's relative income in the study period was due to changes in for example educational composition. At the same time, the motherhood penalty on women's relative earnings persisted.

Table 4. Multivariate models of women's relative income. OLS. Married and cohabiting dual-earner couples aged 25 to 59. 2005-2014

	Model 3		Model 4	
Variable	B	SE	B	SE
Youngest child in household				
0-1 year	-2.72	0.02	-1.91	0.02
2-3 years	-1.87	0.02	-0.74	0.02
4-5 years	-1.97	0.02	-0.58	0.03
6-19 years	-1.49	0.01	-0.10	0.02
No child(ren) living in household	Ref		Ref	
Number of child(ren) 0-19 years			-0.93	0.01
Union status				
Married			-1.69	0.01
Cohabiting			Ref	
Woman's education level				
Primary			0.76	0.02
Secondary			Ref	
University, short			1.62	0.01
University, long			3.74	0.02
Missing			-5.24	0.07
Couple's education				
Homogamous			Ref	
He<her			3.34	0.01
He>her			-4.06	0.01
Missing				
Woman's type of education				
Lower, no specialization / missing			Ref	
Female dominated, public sector			-0.69	0.02
Female dominated, private sector			-0.46	0.02
Gender-mixed, no specialization			-1.57	0.03
Gender-mixed, specialization			0.62	0.02
Male-dominated			1.84	0.02
Man's type of education				
Lower, no specialization / missing			Ref	
Female dominated, public sector			4.45	0.03
Female dominated, private sector			0.61	0.02
Gender-mixed, no specialization			4.06	0.03
Gender-mixed, specialization			-1.38	0.02
Male-dominated			-1.17	0.01
Woman's age			1.30	0.01
Woman's age squared			-0.02	0.00
Man's age			-0.94	0.01
Man's age squared			0.01	0.00
Partners' country of birth				
Both EU/EEA-region etc			Ref	
She Asia, Africa etc., he EU/EEA etc.			-2.40	0.03
He Asia, Africa etc., she EU/EEA etc.			4.87	0.04
Both Asia, Africa etc.			3.36	0.03
Calendar year				
2005	Ref		Ref	
2006	(-0.02)	0.02	-0.09	0.02

	Model 3		Model 4	
Variable	B	SE	B	SE
2007	-0.10	0.02	-0.25	0.02
2008	(0.07)	0.02	-0.18	0.02
2009	0.60	0.02	0.28	0.02
2010	0.83	0.02	0.42	0.02
2011	0.92	0.02	0.41	0.02
2012	1.00	0.02	0.39	0.02
2013	1.12	0.02	0.42	0.02
2014	1.28	0.02	0.47	0.02
Constant	41.18	0.02	35.59	0.14
N	6,048,429		6,048,429	

Note: Estimates not in brackets $p < .0001$

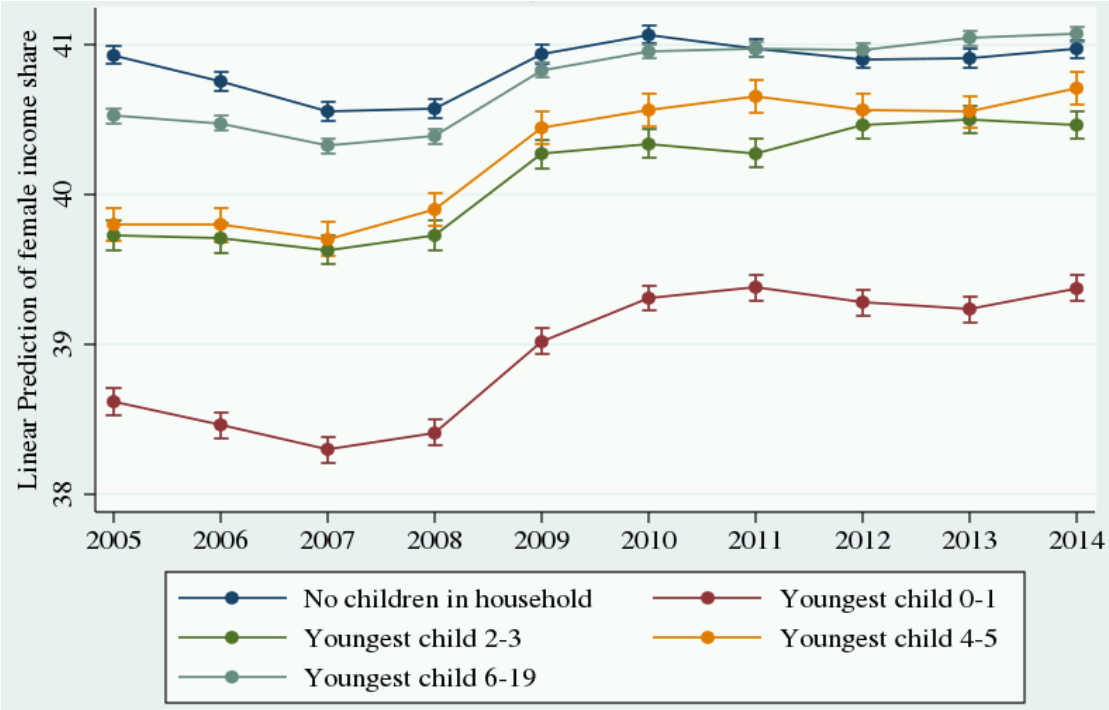
We further set out to investigate whether the negative association between having (small) children and women's relative income has been reduced across the study period (Hypothesis 2b). For ease of interpretation, adjusted predictions (Williams, 2012) from this model are illustrated in Figure 2 (full model results available upon request). In this figure, the adjusted overall trend in women's income shares as well as different developments between women in couples with and without (young) children are of interest. In accordance with Hypothesis 2b, results clearly confirm that women's share of couples' income increased among couples with resident children, net of other measured changes in their characteristics and composition during the study period.

As shown in Figure 2, the increase in women's relative income was particularly evident among couples whose youngest resident child was below school ages. Notably, in couples with child(ren) below two years, women's relative income prediction rose from 38.6% in 2005 to 39.4% in 2014. A similar reduction of within-couple earning inequality was found among couples with older resident children. More precisely, in tandem with the constant improvement of day care coverage in Norway (see Appendix A) women in couples whose youngest resident child was between 2 and 5 years increased their predicted relative income most constant over the study period from 39.7/39.8% in 2005 to around 40.5/40.7% in 2014. Among couples without resident child(ren), on the other hand, women's relative income remained stable at a high level (around 41%), despite a decrease until 2008. In sum these developments reduced the differences in relative earnings between women in couples with and without (small) children.

Considering the timing of changes within the study period, there were interesting parallels to the implementation of family policies. Whereas the (net) female income shares were declining or stable in all groups until 2007/2008, the largest rise occurring in 2009 overlaps with the implementation of the largest expansion of the 'daddy quota' (from 6 to 10 weeks) and the time, when 1-year-olds were

guaranteed public day-care (see Appendix A). As shown in Figure 2, this within-couple inequality reduction was most distinct among couples with the youngest children (0-1 years), which are those immediately affected by these policies. Correspondingly, the increase in women's relative income was less distinct among the childless and those with older children.

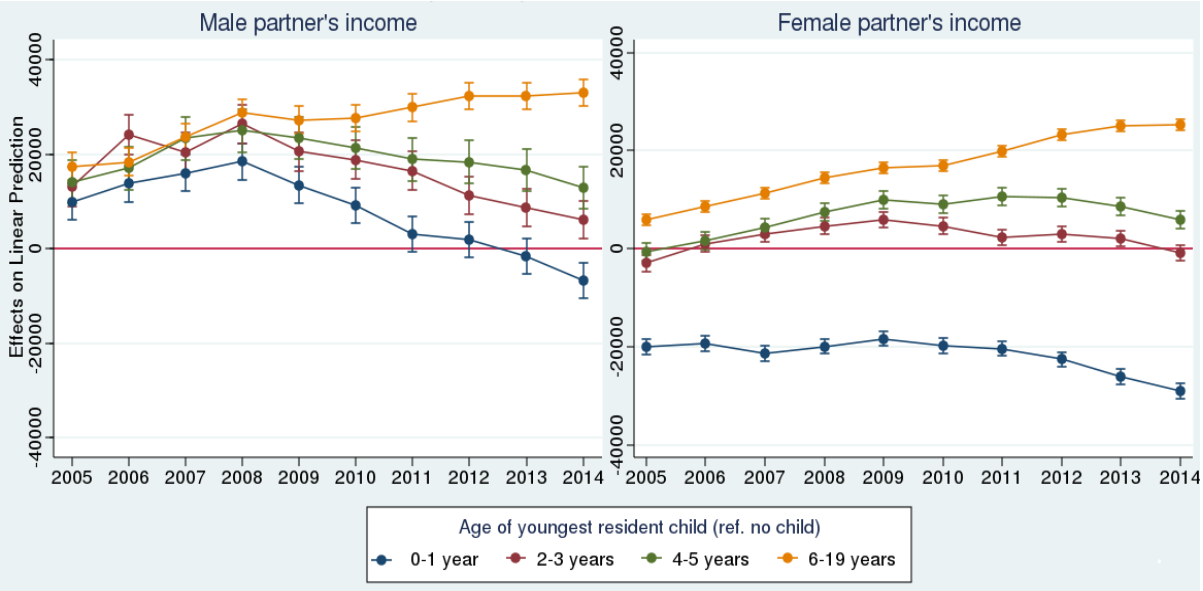
Figure 2. Results from multivariate OLS model of women's relative income. Adjusted predictions with 95% confidence intervals. Married and cohabiting dual-earner couples aged 25 to 59. 2005-2014 (*N*=6,048,429)



Note: Model controlled for couples' number of children, union type, women's education, couples' relative education, his and her type of education, age, and partners' global region of origin.

Finally, to assess our two hypotheses arguing that the reduced gender gap in parental earnings was driven both by a reduced motherhood penalty (Hypothesis 3a) and an emerging fatherhood penalty (Hypothesis 3b), Figure 3 presents results from models estimating developments in the absolute annual incomes of fathers' (left panel)' and mothers' (right panel) separately. Because time trends in absolute incomes are of interest only in so far as they are diverging between couples with children of different ages compared to the reference group, the results are shown as Average Marginal Effects (Williams 2012). In this figure, men and women without (resident) children serve as reference, ensuring that the general income development is not disturbing the different developments among those with children of different ages.

Figure 3. Results from multivariate OLS models of men's and women's annual incomes (in 2014-NOK). Average marginal effects with 95% confidence intervals. By age of youngest resident child. Married and cohabiting dual-earner couples aged 25 to 59. 2005-2014 (*N*=6,048,429)



Note: Models controlled for couples' number of children, union type, women's education, couples' relative education, his and her type of education, age, and partners' global region of origin.

As shown in Figure 3, the predicted income of men with resident children below school ages declined markedly after 2008 compared to their counterparts without children in the household, supporting the assumption that the reduced gap in within-couple earnings is a result of an emerging fatherhood penalty (Hypothesis 3b). Conversely, men with resident children above school ages constantly improved their income compared to those without children (in 2014 they earned 33 000 NOK more on average than the latter group).

Although the presence of small children currently is less negatively related to women's employment than previously (Kitterød, 2016), the findings presented in Figure 3 do not support Hypothesis 3a claiming that the gap in mothers' and fathers' earnings is reduced during the study period due to a weakened association between having young children and female earnings. Instead, what we see for fathers, and somewhat less pronounced also for mothers, is a divergence of the incomes of those with young children, on the one hand, and those with children in school ages, on the other.

8. Summary and discussion

The extent, to which work-family policies affect the relationship between parenthood and women's share of couples' income, has been an important research topic in several countries in recent years.

Numerous studies suggest that work-family policies that encourage mothers' employment may lessen the negative impact of children on women's relative income in couples (Sani, 2015; Stier & Mandel, 2009), but less is known about the role of policies that affect fathers' employment and income (Stier & Mandel, 2009). In this paper, we used register data on the total population of dual-earning married and cohabiting couples ages 25 to 59 to investigate within-couple inequality in earnings in Norway, a social democratic country with high gender-equality ambitions and extensive work-family policies that may affect both parents' employment. We were particularly interested in assessing whether the importance of children changed during the study period 2005 to 2014, when work-family policy measures facilitating mothers' employment and encouraging fathers' family involvement were considerably strengthened. Of particular importance is the rapid expansion of affordable and high-quality day-care for children, including the youngest ones, as well as the extension of the fathers' quota in the parental leave scheme from five to 14 weeks. The period was also characterised by a sharp increase in women's educational level.

In line with these developments, our results showed that women's relative income increased across the study period. Nonetheless, in 2014, women's share of couples' income was on average 41%, up from 40% in 2005, underlining that women on average still earn less than their male partners. Separating between couples with and without resident children, results confirmed that having children was negatively related to women's relative earnings. Controlling for relevant demographic and socioeconomic variables, in 2014 each child in the household (0-19 years) was associated with a 0.76 percentage points lower female income share. The presence of a small child below 2 years in the household gave an additional 1.6 percentage points lower female income share. Mothers with a youngest child in the age group 2-3 years and 4-5 years had respectively 0.6 and 0.4 percentage points lower relative incomes. Taken together, women in couples with small children have lower relative earnings than their counterparts with older children and those without resident children. This finding is in line with extant studies showing that mothers, and particularly those with small children, still spend significantly more time on family work, particularly routine housework, than fathers (Kitterød & Rønsen, 2014).

However, we also showed that the negative association between having (young) children and women's relative earnings was reduced during the study period. The increase in women's share of the couples' income was largest among couples with small children below 2 years and particularly evident during the years with major extensions of the fathers' quota and of day care coverage for young children. This striking simultaneity and the heterogeneous development across couples with children of different

ages may indicate that the extensive parental leave scheme and childcare arrangements in Norway have reduced within-couple inequality in earnings after the arrival of a child.

At the same time, our analyses revealed that the convergence of income in couples seems to be driven by an emerging fatherhood penalty. That is, the reduction in new fathers' income was more pronounced over the study period than the expected catch up of new mothers' incomes. This aligns with previous studies, finding that family policies aimed at new fathers, as the introduction of the 'daddy quota', have effects on their incomes (Cools & Strøm, 2014; Rege & Solli 2013). Our study might indicate a continued impact of policy extensions for the reduction of within-couple inequality in earnings. To be sure, our data did not reveal whether this is due to a reduction in hours worked or differential pay increases. But several Norwegian studies have found evidence of more involved fatherhood, partly explained by the fathers' quota (Brandth & Kvande, 2016; Kitterød, 2016), and it is interesting that having young children seems increasingly relevant also for new fathers' incomes.

Although gender specialization, measured as economic contributions to the household income, has started to weaken, the gender gap in earnings in couples is still clearly present and most distinct among couples with the youngest children. This partly reflects general labour market conditions (persistent gender segregation and gender pay gap), but clearly also persisting gendered time allocations after the arrival of a child. Women still use most of the shareable parental leave and more often reduce their working hours and switch to jobs in the public sector than men (Kitterød et al., 2017), even though their education in many cases surpasses that of their partners.

Further, finding that the reduction in incomes of fathers of young children is not accompanied by an increase in the incomes of mothers of young children, the consequence will be an increase of income inequality between households with young children and those without. More gender equality will then come at the cost of increasing inequality between families with and without young children. In a similar manner, increased economic homogamy due to more equal sharing among partners has been shown to contribute to greater economic inequality between households (Gonalons-Pons & Schwartz, 2017).

The general decrease in the within-couple earning gap after 2008 might be related to the 2008/2009 financial crisis. That is, as men more often than women are employed in private sector jobs, their wages may have been more affected than women's. However, the financial crisis cannot explain why the income developments were so heterogeneous between men with younger versus older children. As

first family formation often overlaps with the establishing phase in the labour market, (perceived) economic uncertainty could nonetheless strengthen a parenthood penalty or make selection into parenthood versus pursuing a career more salient (e.g., Hofmann & Hohmeyer, 2013; Ranjan, 1999). This is, however, highly speculative given the relatively low impact of the economic crisis in Norway and nothing our data can reveal. For the Norwegian case we note that the unemployment rate was low during our study period and did not increase dramatically following the economic crisis in 2008/2009 neither for women nor men (see Appendix B).

Still, the data used for assessing change over time were cross-sectional, which means we did not follow the same couples over time to assess how parenthood changed their income (e.g., Hart, 2015). Hence, the composition of these couples and the selection into parenthood may have varied over time and by other characteristics than those that we have discussed and accounted for. What we interpret as an emerging fatherhood penalty, could in fact be the result of different men becoming fathers. Indeed, we would observe the same pattern if men with higher earnings and career ambitions would forego fatherhood due to increased parenting demands. Empirical evidence from Norway does, however, point in the opposite direction as it is increasingly lower educated men and higher educated women who remain unpartnered and childless (Kravdal & Rindfuss, 2008; Wiik & Dommermuth, 2014). Moreover, from our results we cannot distinguish between different policy effects. Because parental leave benefits are (officially) counted as income, from our data we neither know whom of the partners is working or receiving compensation nor do we know how much the leave-taking itself reduces incomes due to the compensation ceiling. So, although we need to be cautious about pinpointing underlying mechanisms, our study does reveal that new parents are increasingly equal-earners and that this pattern shows striking simultaneity with work-family policies that aim at strengthening these roles.

However, family policy implementations do not follow a continuum in Norway: Our study period ended with a reduction of the fathers' quota (14 to 10 weeks) and an increase in the monthly sum for the cash-for-childcare benefit (see Appendix A). What we might interpret as a trend, might vanish if institutional support changes. What is unlikely to change fast, though, is the educational component in this picture, namely the first part of the gender revolution (Goldscheider, Bernhardt & Lappegård 2015). In line with other studies, our results confirm that female education plays a role for provider roles in couples. In addition, the finding from the current study implies that increased institutional support may advance also the second part of the gender revolution (namely fathers taking more responsibility at home).

Notes

1. People with very high incomes do not necessarily receive full income compensation since there is a cap equivalent to six times the National Insurance basic amount (G) (1G was approximately 10,400 Euros in 2014). However, some employees are guaranteed full income compensation from their employer even if their income exceeds the ceiling. In addition to the paid parental leave, each parent is entitled to one year of unpaid leave with job protection after the paid leave period.
2. Periods when parents have received sickness benefit, parental benefit, unemployment benefit etc. are considered equivalent to work.
3. Omitting couples where one partner has very low income or is outside the labour force, prevents results to be driven by extreme cases such as those where one partner earns 100%. Indeed, without this sample specification mothers outside the labour market substantially reduce the average female income shares in couples with children below 4 years. Also, couples without children in the household comprise above-average many females that are outside the labour force, further emphasizing the heterogeneity of those without income. Around 100,000 couples are dropped each year due to this dual-earner specification (e.g., 2014, N=111,721).
4. The variable was developed by Hoem, Neyer, and Andersson (2006), and has been applied in several analyses on fertility, see for instance (Rønsen and Skrede, 2010).

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Appendix A. Family policies and business cycles in Norway 1992-2014[a)]

	Parental leave (weeks)				Percentage in kindergarten			Cash for childcare			Business cycle
	Total leave (100%/80% wage com-pensation)	Reserved for the mother (before/after delivery)	Reserved for the father	Joint period (100%/80% wage compensation)	Age 1	Age 2	Ages 3-5	Age of eligible children (months)	Percentage users of eligible children	Benefit per month (no daycare) [b)]	Unemploy-ment rate
1992	35/44.4	2/6	0	27/36.4	16	29	59	-	-	-	5.9
1993	42/52	3/6	4	29/39	18	32	61	-	-	-	6.0
1994	42/52	3/6	4	29/39	21	35	64	-	-	-	5.4
1995	42/52	3/6	4	29/39	23	39	66	-	-	-	4.9
1996	42/52	3/6	4	29/39	26	42	69	-	-	-	4.8
1997	42/52	3/6	4	29/39	31	49	73	-	-	-	4.8
1998	42/52	3/6	4	29/39	26	52	76	13-24	77	3,000 NOK	3.2
1999	42/52	3/6	4	29/39	27	45	77	13-36	75	2,263 NOK	3.2
2000	42/52	3/6	4	29/39	27	46	78	13-36	74	3,000 NOK	3.4
2001	42/52	3/6	4	29/39	28	48	80	13-36	73	3,000 NOK	3.5
2002	42/52	3/6	4	29/39	29	51	83	13-36	71	3,000 NOK	3.9
2003	42/52	3/6	4	29/39	33	52	85	13-36	69	3,675 NOK	4.5
2004	42/52	3/6	4	29/39	38	58	88	13-36	63	3,675 NOK	4.5
2005	43/53	3/6	5	29/39	44	66	91	13-36	58	3,675 NOK	4.6
2006	44/54	3/6	6	29/39	51	73	93	13-35	52	3,303 NOK	3.4
2007	44/54	3/6	6	29/39	61	79	94	13-35	41	3,303 NOK	2.5
2008	44/54	3/6	6	29/39	66	86	96	13-35	35	3,303 NOK	2.6
2009	46/56	3/6	10	27/37	71	86	96	13-35	31	3,303 NOK	3.2
2010	46/56	3/6	10	27/37	72	90	97	13-35	28	3,303 NOK	3.6
2011	47/57	3/6	12	26/36	70	90	97	13-35	21	3,303 NOK	3.3
2012	47/57	3/6	12	26/36	68	90	97	13-23	22	5,500/3,303 NOK [c)]	3.2
2013	49/59	3/14	14	18/28	69	89	97	13-23	23	5,500/3,303 NOK	3.5
2014	49/59	3/10	10	26/36	67	91	97	13-23	23	6,000 NOK	3.5

a) Source: NOU 2017:6: Offentlig støtte til barnefamiliene. Oslo: Ministry of Children and Equality
b) Some changes apply from 1. January, and some from 1. August.
c) Applies to children 13-18/19-23 months

Appendix B. Employment and contractual working hours per week among women and men in the ages 25-54 in Norway 1992-2014

	Women						Men					
	Employ-ment-rate [a]	Unem-ployment rate [b]	Working hours [c]				Employ-ment-rate [a]	Unem-ployment rate [b]	Working hours [c]			
			Part time, 1-19 hours	Part time, 20-36 hours [d]	Full time, 37-39 hours	Full time, 40 hours +			Part time, 1-19 hours	Part time, 20-36 hours [d]	Full time, 37-39 hours	Full time, 40 hours +
1992	76	4.1	19	25	48	7	86	5.5	2	3	66	29
1993	76	4.1	18	26	48	8	85	5.7	2	3	68	27
1994	76	3.8	18	25	50	7	86	5.0	2	3	69	26
1995	77	3.7	18	25	50	8	87	4.4	2	3	69	25
1996	78	3.8	17	24	50	8	88	3.8	3	3	66	28
1997	80	3.4	17	26	49	8	90	3.0	2	3	67	27
1998	81	2.3	16	26	50	8	90	2.2	2	3	68	27
1999	82	2.1	15	26	51	8	90	2.5	2	3	68	26
2000	82	2.3	14	25	52	9	89	2.9	3	3	70	24
2001	81	2.5	14	25	54	8	89	2.8	3	4	71	23
2002	81	2.8	14	24	53	9	88	3.2	3	3	69	25
2003	80	3.3	13	24	54	8	86	4.3	3	4	69	24
2004	80	3.4	14	24	54	8	86	4.3	4	4	69	23
2005	80	3.8	13	24	55	8	86	4.2	3	4	70	22
2006	81	2.9	13	25	54	8	88	3.0	3	4	68	24
2007	82	2.0	11	24	56	9	89	1.9	3	4	69	24
2008	84	1.8	10	24	56	10	90	2.1	3	4	69	25
2009	84	2.0	10	24	56	10	88	2.8	3	5	68	24
2010	82	2.5	10	24	57	10	87	3.4	3	4	69	24
2011	82	2.5	10	24	57	9	87	2.9	3	4	69	24
2012	82	2.3	10	23	57	11	87	2.9	3	4	69	23
2013	82	2.9	10	22	57	10	87	2.9	3	4	69	24
2014	81	3.2	10	20	60	10	86	3.4	3	4	68	24

a) Persons who performed work for pay or profit for at least one hour in the reference week, or who were temporarily absent from work due to illness, holidays, paid parental leave etc.

b) Unemployed persons in percentage of labour force (employed plus unemployed). Persons who were not employed in the reference week, but who had been seeking work during the preceding four weeks, and were available for work in the reference week or within the next two weeks.

c) Main and secondary jobs.

d) With exception of persons with 32-36 contractual hours who classify themselves as full-time employed.

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