

Work/Family Arrangements across the OECD: Incorporating the Female-Breadwinner Model

Helen Kowalewska, ESRC Postdoctoral Research Fellow at the University of Southampton, UK¹

Agnese Vitali, Associate Professor of Demography at the University of Trento, Italy²

Abstract

Studies of work/family arrangements over time and space typically analyse families by the extent to which they follow a 'male-breadwinner' versus a 'dual-breadwinner' model. Yet, this analytical framework overlooks an alternative set of labour-market arrangements that is becoming increasingly common across heterosexual couple-households in advanced economies, which is the 'female-breadwinner' model. Very little is known about these families, as studies typically assume that men in couple-households are full-time employed. To contribute to addressing this deficit in knowledge, we compare the economic characteristics of female-breadwinner couples with those of male-breadwinner families across 20 OECD countries through descriptive analyses using Luxembourg Income Study data. In so doing, we identify two 'types' of female breadwinners, which appear to be stratified by class. The first is the 'pure' female-breadwinner couple, in which the woman is in employment and the man is not. Pure female-breadwinner families are as poor as pure male-breadwinner households, if not poorer. What is more, as individuals, pure female breadwinners are typically low-educated and have significantly lower average earnings than pure male breadwinners. The second type is the 'one-and-a-half' female breadwinner model, in which the woman is in full-time employment and the man works part-time. One-and-a-half female breadwinners are generally doing better than pure female-breadwinners; yet, when we look at the individual labour earnings of one-and-a-half female breadwinners compared with their male counterparts, we find these women still earn far less. Without measures to address stubborn gender inequalities in earnings, the current policy imperative towards increasing women's participation in (any) employment risks upholding masculine breadwinning norms and ideals. This in turn limits the abilities of families to respond to the complexity and unpredictability of modern life, when shock events or other circumstances (e.g. recession, illness) require a shift in breadwinning between partners.

¹Faculty of Social and Human Sciences, University of Southampton, Southampton, SO17 1BJ. H.R.Kowalewska@soton.ac.uk.

²Department of Sociology and Social Research, University of Trento, Via Verdi, 26 - 38122 Trento, Italy. Agnese.Vitali@unitn.it.

Key words: Breadwinning; Earnings; Female breadwinners; Gender; Household employment; Luxembourg Income Study; Male-breadwinner model; Work/family arrangements; Women's education; Women's employment

Introduction

The gendered division of paid and unpaid work within heterosexual couple-households has transformed in recent decades. In describing and analysing this change, comparative studies of the welfare state have settled on the framework of the 'male-breadwinner' versus the 'dual-breadwinner' family models (e.g. Esping-Andersen, 1999; Gornick and Meyers, 2009; Von Gleichen and Seeleib-Kaiser, 2018). At the normative level, social policies across advanced economies have shifted towards labour market 'activation' or 'employment for all' (Orloff, 2006). In other words, policies have moved away from explicitly supporting men to do all the paid work and women to do all the unpaid domestic work, and towards assuming and prescribing both the male and female members of the couple to engage in paid work. This is evidenced by the expansion of policies designed to encourage maternal employment, the trend towards 'defamilialising' services that enable care to take place outside of the family, and a tightening of the link between employment and social rights. At the empirical level, the proportion of couple-households with two wage-earners has increased while the share of male-breadwinner families has declined (e.g. Daly, 2011; Lewis, 2001; Lewis et al., 2008).

Scandinavian countries have moved furthest towards policies that are supportive of dual, full-time breadwinning for couple-families. Elsewhere, however, a 'partial' dual-earner, but still gender-specialised policy model has emerged, which upholds women's secondary labour market position (e.g. Daly, 2011; Gornick and Meyers, 2008; Lewis, 2001). State provision of child care services remains inadequate and unaffordable in many countries (e.g. Ciccio and Bleijenbergh, 2014). Women continue to be the main users of 'home-care' cash benefits for stay-at-home parents and exemptions from full-time employment while children are young. Although these policies are couched in gender-neutral terms (e.g. 'parent') and language around 'choice', a lack of proactive measures to transform men's domestic roles, wider pressures and norms (e.g. ideas about 'good' mothering), and women's lower labour incomes mean it is still mainly women who make use of flexible and part-time working (e.g. Ellingsæter, 2012). Yet, these forms of paid work tend to be concentrated in low-wage occupations and are associated with occupational downgrading and a pay penalty for many women throughout their working lives (e.g. Connolly and Gregory, 2008; Manning and Petrongolo, 2008). Furthermore, by increasing the statistical likelihood that women will reduce or withdraw their labour for caregiving in

the future, the gender-specialised policy model encourages employers to favour men over women when it comes to hiring, training, and promotion decisions, thus stalling women's career progression (e.g. Estévez-Abe, 2006; Mandel and Semyonov, 2006).

Empirical studies of actual employment and family behaviours confirm that a dual, full-time breadwinner model is often not a reality for couple-households outside Scandinavia (e.g. Hook, 2015; Lewis et al., 2008). Although the dual-breadwinner model is widespread among highly educated couples in Southern European countries and the United States, lower-educated couples in these countries are still predominantly male-breadwinner households (Hook, 2015). Yet, couples relying on a single earner have a higher risk of poverty than those with two earners (e.g. Harkness, 2010). Elsewhere, most couples fall somewhere along the male-breadwinner/dual-breadwinner continuum into what is sometimes called a 'one-and-a-half' male-breadwinner model. Under this arrangement, the man is in full-time, continuous employment, while the woman is in part-time employment and carries out the lion's share of the domestic duties (e.g. Lewis, 2001, 2009).

However, an alternative set of labour market arrangements is becoming increasingly prevalent across all welfare state regime types. Here, we are referring to those couple-households in which the woman is the main or only wage-earner – that is, the 'female-breadwinner' family model. Such families have received limited attention within studies of work/family arrangements across different welfare states, which typically assume that men in couple-households are in (full-time) employment (Hook, 2015). Consequently, it remains unclear how female-breadwinner families are doing compared with other couple-families. We contribute to clarifying these issues by shedding light on the economic characteristics of female-breadwinner families across twenty countries.

Integrating the female breadwinner into the male breadwinner/dual breadwinner framework that dominates comparative social policy analysis can underpin a more nuanced analysis of gender equality and the gendered division of labour. The dual, full-time breadwinner model may be an undesirable if not unattainable aspiration for certain families, at least during some periods of the life-course. Job loss, career changes and breaks, parenthood, caring for a sick or elderly relative, illness, and disability, as well as individual agency and choice around employment and caregiving can mean it is neither feasible nor desirable for both members of a couple to engage in full-time employment.

Thus, breadwinning needs to be a genuinely non-gendered opportunity so that men and women can, if necessary, 'take turns' in being the main wage-earner according to the family's shifting needs and wants (Gerson, 2010). That means there may be some time spent under a male-breadwinner arrangement, some time under a dual-breadwinner arrangement, and some time under a female-breadwinner arrangement, so that everything averages out and a gender-egalitarian division of breadwinning is reached in the long-run. Therefore, assessing how female-breadwinner families are doing compared with male-breadwinner families is important for ensuring that families are not unduly penalised when the woman rather than the man is the breadwinner, especially since female breadwinning is not a short-lived arrangement (e.g. Bryan and Longhi, 2018; Drago et al., 2005). Furthermore, challenging masculine breadwinning ideals that emphasise men's financial provision is the other side of the coin of transforming men's domestic roles: it is only through degendering unpaid *and* paid labour that the gendered division of labour can be 'undone'.¹

Such fluidity in couple's work arrangements is especially important for protecting families against poverty during uncertain times. Research has highlighted gender-specific patterns of job loss during and after an economic crisis. In the immediate aftermath of the 2008 economic crisis, male-dominated industries were hardest hit, resulting in male job-loss and an associated increase in female breadwinning. Yet, the subsequent implementation of austerity policies led to job cuts across the female-dominated public sectors, as well as reductions in childcare service provision and other policies that enable women's employment, thereby triggering an increase in male breadwinning (e.g. Dotti Sani, 2018; Karamessini and Rubery, 2013; Sánchez-Mira and O'Reilly, 2019). Therefore, the abilities of families to transition between different breadwinning arrangements can potentially make them more resilient in the face of economic uncertainty.

Through descriptive analyses, two-sample t-tests, and Wilcoxon rank-sum tests using Luxembourg Income Study data, we identify two 'types' of female breadwinner, which mirror the male-breadwinner variants identified in pre-existing literature. The first is the 'pure' female breadwinner, in which the woman is in employment and the man is not. These households are poorer than dual-breadwinner couples and, in certain countries, are poorer than their male-breadwinner counterparts. Furthermore, as individuals, pure

female breadwinners earn less than male breadwinners and are more likely to be in low-paying occupations. The second type is the 'one-and-a-half' female breadwinner model, in which the woman is in full-time employment and the man works part-time. One-and-a-half female breadwinners are doing better than pure female-breadwinners, partly because these women tend to be highly educated and work in managerial occupations. Even so, their total household incomes are lower than those of one-and-a-half male breadwinners in many countries; what is more, when we look at the individual labour earnings of female one-and-a-half female-breadwinners, these women earn far less than their male equivalents.

Thus, our results show that breadwinning remains gendered: couple-households tend to be poorer when the woman rather than the man is the breadwinner. This reflects stubborn gender inequalities in terms of occupations, working hours, and earnings. So, without measures to address persistent gender inequalities in the labour market, the current policy imperative towards 'employment for all' will simply reproduce male breadwinning norms and ideals. This limits the abilities of families to respond to the complexity and unpredictability of modern life, when shock events or other circumstances require a shift in breadwinning between partners.

Our results also point to substantial economic heterogeneity within the female breadwinner model. Pure female breadwinners are more likely than one-and-a-half female breadwinners to be lower-educated and work in labourer and elementary occupations, and typically work fewer hours, too. At the same time, pure female breadwinners are less likely than one-and-a-half female breadwinners to be highly educated or work in managerial and professional occupations and earn far less on average. As Hook (2015) points out, scholars have long argued for joint consideration of gender and class in comparative social policy. Our findings suggest that in achieving this aim, scholars must extend the male breadwinner/dual breadwinner framework that dominates the literature to include the female breadwinner category, too.

The next section summarises existing studies of household employment patterns within comparative social policy research, and how an analysis of female breadwinning fits into this. We then outline our data and approach in the third section and our findings in the fourth. We conclude by drawing insights for comparative social policy analysis and policy.

Transformations in Breadwinning

Since the mid-1990s, the concept of 'social investment' has come to dominate debates on the welfare state within academic and policymaking contexts. Behind this concept is the idea that social policies designed to 'invest' for the future can help welfare states adapt to the dual challenges of increased demands for state social provision and a smaller tax-base under post-industrialism. Crucial to achieving the goals of social investment is the promotion of a 'dual-breadwinner' family model, whereby men and women provide for their own welfare through their individual participation in paid employment. Proponents of social investment highlight the lower rates of childhood poverty and – if work/family reconciliation supports are adequate – higher fertility rates among dual-breadwinner couples compared with their single-earner counterparts (e.g. Esping-Andersen, 2002; Esping-Andersen, 2016).

However, as feminist scholars of the welfare state have argued, these assumptions of self-sufficiency, individuality, and independence outrun the reality for most couple-households (e.g. Lewis, 2001; Daly, 2011). Despite some acknowledgement by proponents of social investment of gender disparities in paid work, getting more women into (any) employment to secure the financial sustainability of the welfare state is considered 'of utmost priority' (Hemerijck et al., 2016: p. 22). Yet, this focus on maximising women's employment rates fails to problematise the overrepresentation of women in 'flexible' forms of employment, which are often part-time, short-term and poorly paid (e.g. Jenson, 2015; Lewis, 2001; Saraceno, 2015). Women's employment disadvantages risk being further compounded by the relative silence of the social investment agenda on transforming men's domestic behaviour (Jenson, 2015; Saraceno, 2015). Rather, it is accepted that 'men are unlikely to substitute fully for the decline in female domestic work' (Esping-Andersen, 2009: p. 80).

True, dual, full-time breadwinning is prevalent across Scandinavia (Appendix). This reflects cultural support for women's employment (e.g. Haas et al., 2006) and a recognition that care is important and a shared social concern, rather than simply a matter of personal responsibility (e.g. Craig and Mullan, 2010). 'Defamilialising' policies, such as universal, high-quality childcare services, employment-supporting parental leaves, and generous family allowances, have brought more women into the workforce

and have been associated with some change in the gendered division of unpaid work (e.g. Gornick and Meyers, 2009; Korpi, 2000).

Elsewhere, however, the real-life employment arrangements of couple-households rarely conform to the dual full-time breadwinner model. In most Anglo-Saxon and Continental countries, the labour market behaviours of many couple-households approximate a 'one-and-a-half' male-breadwinner model comprising a male full-time wage-earner and female part-time wage-earner (Lewis, 2001; Appendix). This reflects predominantly market-based provision of care services (e.g. the United Kingdom) and/or partial state care services (e.g. the Netherlands), as well as strong male-breadwinning norms, cultural support for female caregiving - especially while children are young - and widespread part-time employment opportunities (e.g. Hook, 2015; Lewis, 2001; Lewis et al., 2008). In Southern European countries and the United States breadwinning is more polarised: while highly educated mothers are primarily in dual full-time breadwinning households, lower-educated mothers are largely in male-breadwinner households (Hook, 2015; Lewis et al., 2008; Sánchez-Mira and O'Reilly, 2019). The under-provision of state care services and work/family reconciliation policies, together with a relative scarcity of part-time jobs and strong familialism in the Mediterranean regime, shuts poorer and lower-educated mothers who are unable to afford market solutions to work/family conflicts out of the labour market (e.g. Esping-Andersen, 2009; Hook, 2015). Similar polarisation is observed in post-Soviet countries, although rates of male breadwinning tend to be lower than in Southern European states (Sánchez-Mira and O'Reilly, 2019).

Nevertheless, there is another model of work/family arrangements that is becoming increasingly common among couple-households across advanced economies, which is the female-breadwinner model. While this model remains rare in certain countries, such as the United States, Poland and Slovakia, it is an increasingly common arrangement in many countries, especially Canada, Greece, Spain, and Finland (Appendix). Under this arrangement, the female partner performs most or all paid employment. It is perhaps the preoccupation of the comparative welfare regime literature with defamilialisation and its implicit assumption that men in couple-households will be in full-time employment that explains why this literature has so far neglected serious analysis of female

breadwinners. As the sociological and demographic literatures indicate, explanations for the rise in female breadwinners run deeper than work/family policies.

In this vein, some scholars focus on the emergence of educationally-hypogamous couples, whereby the woman is better-educated than the man and so more likely to work in professional jobs that carry higher average earnings. Consequently, women within educationally-hypogamous couple often out-earn their male partners (e.g. Van Bavel and Klesment, 2017). Furthermore, women who are more educated than their male partners are able to exert more power and, in turn, influence their partners to reduce their hours, which will also reduce their earnings (Kanji, 2013). Other scholars suggest female breadwinning is not associated with gender-egalitarian attitudes (Vitali and Arpino, 2016), and instead focus on how poor economic outcomes among low-skilled men create female-breadwinner households (Bettio and Verashchagina, 2013; Dotti Sani, 2018; e.g. Harkness and Evans, 2011; Vitali and Arpino, 2016). Studies have found that the rise in female breadwinning has been most pronounced in those countries that were worst and first hit by the 2008 economic crisis, mainly the Mediterranean and Baltic states. This reflects the negative impacts on the crisis on male-dominated sectors, such as manufacturing and construction, which caused many men to lose their jobs. In response, more women moved into employment or increased their hours of paid work to compensate for their partners' unemployment or underemployment (Bettio and Verashchagina, 2013; Dotti Sani, 2018; Sánchez-Mira and O'Reilly, 2019).

These two explanations suggest that the category of female breadwinner is highly heterogeneous. According to the first argument, women are the main breadwinners because they have higher levels of education than their partners. This suggests that female-breadwinner couples have some degree of protection against poverty, as women in these couples have high earnings potential while their partners are generally in employment, too. Yet, according to the second argument, women become the sole providers out of economic necessity, when the partner loses his job. Accordingly, we might expect female-breadwinner couples to have a high risk of poverty given their reliance on a single labour income.

Female-breadwinner families have featured in previous studies of couple-households' employment arrangements across different countries (Dotti Sani, 2018; Haas et al., 2006;

Hook, 2015; Sánchez-Mira and O'Reilly, 2019). However, these studies do not analyse the income and job-related characteristics of female breadwinners. Consequently, we still know very little about the relative economic (dis)advantages of female breadwinners compared with other families, including their male-breadwinner counterparts. Our paper contributes to addressing this shortcoming by comparing female-breadwinner couples' household incomes with those of other couple-types across different countries and examining how men and women in female-breadwinner couples differ on key economic characteristics (individual earnings, working hours, etc.) from men and women in male-breadwinner couples.

To allow for a fuller comparison of female-breadwinner and male-breadwinner families, we replicate the distinction made in the comparative welfare state literature between male-breadwinner couples according to whether the woman is in part-time employment or not in employment at all. To this aim, we differentiate between 'pure' female-breadwinner couples, in which the woman is the only wage-earner, and 'one-and-a-half' female breadwinner couples, in which the woman is in full-time employment and the man is in part-time employment. Prior studies of couples' employment arrangements have not sought to distinguish between these two 'types' of female breadwinner, instead placing them in the same analytical category. By contrast, our analysis can provide a more nuanced portrait of female-breadwinner couples that is potentially better-placed to capture the heterogeneity of female breadwinners.

Data and Approach

We draw on data from a range of countries representing different welfare state and gender regimes (Esping-Andersen, 1999; Korpi, 2000). In assessing the economic characteristics of female breadwinners and other couple-types, we use individual and household-level data on income from the Luxembourg Income Study (LIS). Unlike datasets focused on Europe only, the LIS dataset allows us to include three additional liberal welfare states (Australia, Canada and the United States) besides the United Kingdom, so that our sample of countries is more balanced in terms of the different welfare regimes. Still, comparability across countries must be treated with caution, as the LIS (2018) harmonises existing country-specific surveys into a common framework *ex-post*.

We consider twenty countries with at least one available wave of data in the 2010s and use the most recent wave of data for each country. Our sample is restricted to households containing two heterosexual cohabiting spouses/partners aged 18–65. Couples with or without children are included. However, couples in which one or both partners are in education, disabled, or retired are excluded. Also excluded are couples in which both partners are unemployed/inactive and couples living solely on capital income or with other adults who are not their children.

Our independent variable is the couple's employment arrangement, which is based on the regular hours worked per week at all jobs currently held by each member of the couple. This variable comprises five categories:

1. *'Pure' male breadwinner.* Man employed, woman not employed.
2. *One-and-a-half male breadwinner.* Man employed full-time (30 hours per week or longer), woman in part-time employment (fewer than 30 weekly hours).
3. *Dual breadwinner.* Man and woman are in employment for a similar number of hours.
4. *One-and-a-half female breadwinner.* Woman employed full-time, man employed part-time.
5. *'Pure' female breadwinner.* Woman employed, man not employed.

Due to data limitations, we only use three categories of employment arrangements for Denmark, Norway, Poland, and Slovenia. These are: (i) pure male breadwinner, which corresponds with Category 1 above; (ii) dual breadwinner, which merges Categories 2–4; and pure female breadwinner, which matches Category 5. The distribution of couple-households across these different models is detailed in the Appendix, while the Supplementary Material provides information on average demographic and socioeconomic characteristics for each couple-type across different welfare state regimes.

We compare the economic characteristics of couple-types using the following variables:

- i. Median disposable annual household income, which includes all monetary and non-monetary² current income net of income taxes and social security contributions.
- ii. Median annual labour income for both the man and woman in the couple, which includes all monetary payments and the value of non-monetary goods and

services received from dependent employment in addition to profits/losses and the value of goods for own consumption from self-employment.

- iii. Mean number of hours worked by the breadwinner per week (unavailable for Denmark, Norway, Poland, or Slovenia).
- iv. The percentage of breadwinners employed in elementary occupations (International Standard Classification of Occupations (ISCO-08) Major Group 9).
- v. The percentage of breadwinners employed as managers or professionals (International Standard Classification of Occupations (ISCO-08) Major Groups 1 and 2). However, the occupation variable is not available for Canada, Italy, or Norway.
- vi. The percentage of breadwinners with low education, i.e. less than secondary education (International Standard Classification of Education (1997) Levels 0-2).
- vii. The percentage of breadwinners with high education, i.e. completion of tertiary education (International Standard Classification of Education (1997) Levels 5 and 6).

Labour incomes are gross of taxes and social contributions, except for Slovenia and Italy, and are for the whole year. However, LIS definitions of labour-force status and number of hours worked refer to the week before the interview only.³ Hence, we may have cases where the partner of a 'pure' breadwinner did not work last week but has a positive annual labour income if, for instance, he/she has a seasonal job or has only recently become unemployed. To facilitate cross-national comparison, we transform monetary amounts using the Purchasing Power Parity and a deflator, which are obtained from World Bank Indicators. Monetary incomes are expressed in 2016 US dollars. To reduce distortions from extreme values, incomes are bottom-coded to zero and top-coded to ten times the median of the country in which the couple resides. Incomes are also adjusted for household size using the LIS equivalence scale. To assess whether observed differences in incomes between male and female-breadwinner couples are statistically significant, we use two-sample t-tests on the difference between two population proportions/means and Wilcoxon (1945) rank-sum tests for the difference between two population medians.

Results and Discussion

Pure Female Breadwinners

Single-breadwinner couples, in which only one member of the couple is in employment, are poorer than other couple-types across the countries in our study, with few exceptions (Table 1). What is more, in half of the countries, pure female breadwinners have lower total disposable household incomes than pure male breadwinners. The income disadvantages of pure female-breadwinner households relative to pure male-breadwinner households are greatest (and statistically significant) in Germany, Norway, the United Kingdom, Italy, Spain, the Czech Republic, Poland, and Estonia. In Slovakia and Greece, pure female breadwinners have lower household incomes than pure male breadwinners, too; however, these differences are neither substantiatively nor statistically significant.

Table 1. Median disposable household income by couple type and country.

	Pure MBW	Pure FBW	Test: Pure MBW vs Pure FBW	DBW	1.5 MBW	1.5 FBW	Test: 1.5 MBW vs. 1.5 FBW
Australia	\$28,197	\$28,345	ns	\$47,082	\$37,986	\$37,365	ns
Canada	\$26,554	\$29,130	ns	\$37,990	\$32,589	\$27,167	**
UK	\$17,095	\$13,983	***	\$32,505	\$24,959	\$25,968	ns
United States	\$31,209	\$31,401	ns	\$50,855	\$43,805	\$42,227	ns
Austria	\$22,622	\$23,015	ns	\$36,979	\$30,501	\$31,935	ns
Germany	\$22,480	\$17,064	***	\$33,539	\$28,917	\$27,681	ns
Luxembourg	\$28,559	\$31,237	ns	\$45,253	\$39,565	\$50,036	***
Netherlands	\$23,183	\$24,472	***	\$35,714	\$28,731	\$28,628	ns
Switzerland	\$32,000	\$32,227	ns	\$52,162	\$39,888	\$45,902	ns
Czechia	\$14,034	\$11,050	***	\$18,703	\$15,954	\$23,080	*
Estonia	\$11,644	\$9,403	**	\$16,639	\$13,452	\$9,265	ns
Poland	\$11,833	\$9,466	***	\$16,964	-	-	-
Slovakia	\$11,562	\$11,141	ns	\$16,828	\$13,403	\$13,100	ns
Slovenia	\$13,933	\$13,961	ns	\$22,478	-	-	-
Italy	\$12,523	\$9,583	***	\$24,377	\$19,269	\$24,652	*
Greece	\$10,623	\$10,300	ns	\$19,836	\$16,212	\$16,884	ns
Spain	\$16,717	\$14,934	***	\$28,599	\$20,182	\$16,822	ns
Denmark	\$26,957	\$27,525	**	\$35,740	-	-	-
Finland	\$23,002	\$23,059	ns	\$31,697	\$25,699	\$26,210	ns
Norway	\$26,217	\$22,891	***	\$41,510	-	-	-

Notes. The columns “Test 1.5 FBW vs. 1.5 MBW” and “Test FBW vs. MBW” report the p-values associated with the Wilcoxon rank-sum test for the equality of median disposable household income between the populations of 1.5 FBW vs. 1.5 MBW couples and between the populations of FBW vs. MBW couples, respectively, for each country. * = p<0.1; ** = p<0.05; *** = p<0.001. The following categories are used: ‘Pure MBW’ = man is the only wage-earner; ‘Pure FBW’ = woman

is the only wage-earner; 'DBW' = man and woman work similar hours; '1.5 MBW' = man works ≥ 30 hours per week, woman works < 30 hours; '1.5 FBW' = woman works ≥ 30 hours, man works < 30 hours. However, for Denmark, Norway, Poland, and Slovenia, 'DBW' indicates that both partners are in employment, but one member of the couple may work significantly more/fewer hours than the other.

Sources. Luxembourg Income Study Wave 10 (~2016) or 9 (~2013); own calculations.

Elsewhere, pure female breadwinners' total household incomes exceed those of pure male breadwinners. This difference is largest in Canada, Luxembourg, and the Netherlands, but is statistically significant only for the Netherlands. Pure female breadwinners additionally have higher disposable household incomes than pure male breadwinners in Australia, the United States, Austria, Switzerland, Denmark, Finland, and Slovenia; again, though, these differences are small and not statistically significant.

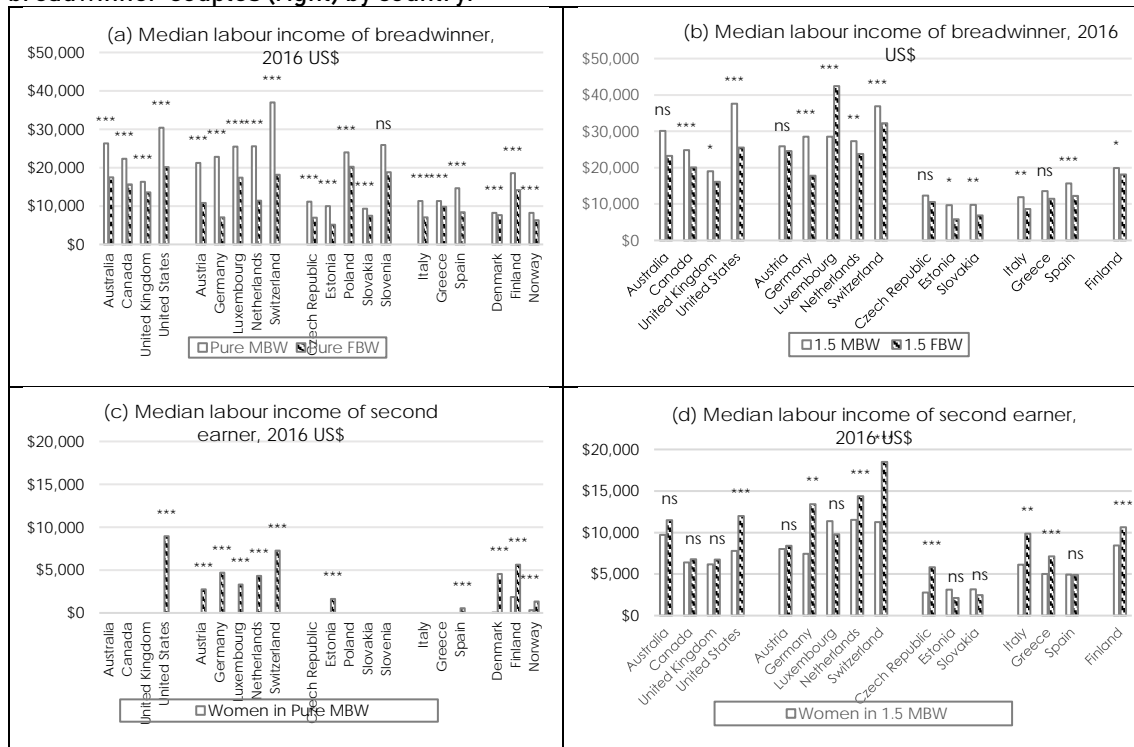
Nevertheless, the results in respect of pooled household incomes mask inequalities between pure male breadwinners and pure female breadwinners *as individuals*. Across all countries, pure female breadwinners have lower individual labour earnings on average (Figure 1a). This individual earnings disadvantage is statistically significant everywhere, with Slovenia the only exception. This may be because men heading pure male-breadwinner households tend to work longer hours than women who head pure female-breadwinner couples (Figure 1e; Supplementary Material). It is plausible that the gendered division of family responsibilities means pure female breadwinners have less time to devote to paid work than pure male breadwinners. Indeed, gender differences in employment hours for pure breadwinners are especially large in Anglo-Saxon and Continental countries, where part-time employment and traditional male-breadwinning norms are more widespread (e.g. Lewis et al., 2008). Conversely, we see that gender earnings differentials among pure breadwinners are small in Denmark. This may reflect state support for a dual, full-time breadwinner model, which means women find it easier to remain attached to the labour market in 'good', often full-time jobs, as public care services are widely available and policies encourage a more equal division of care work between men and women (e.g. Saraceno and Keck, 2011).

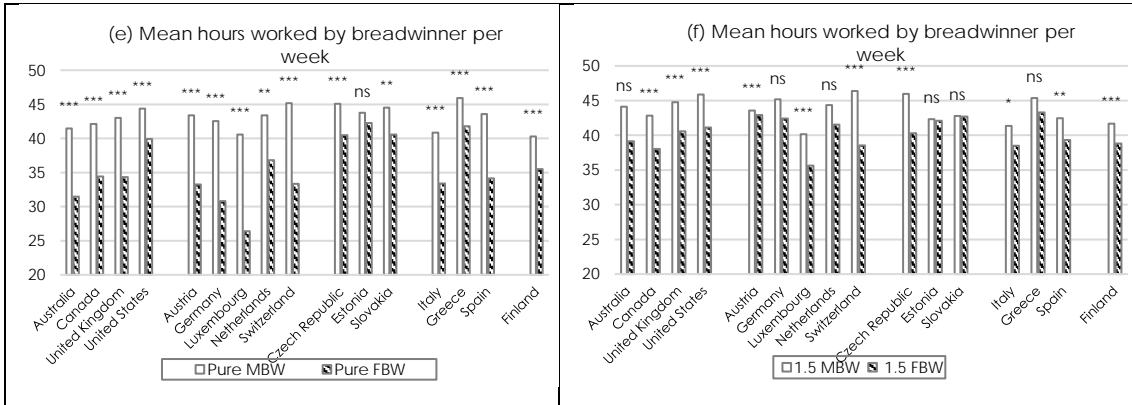
Pure female breadwinners' lower individual earnings may also reflect occupational differences, at least in some countries. Notably, pure female breadwinners in Anglo-Saxon and Continental countries, as well as Finland, are less likely than pure male breadwinners to work in the most lucrative managerial and professional occupations.

Pure female breadwinners are also more likely than their male counterparts to be in elementary occupations, especially in Continental and Mediterranean countries (Figure 2a; Supplementary Material). This may be symptomatic of the high proportions of pure female breadwinners in these regimes with lower levels of education, which are much higher than for other regime-types (Figure 2e; Supplementary Material).

Narrow gaps between pure male-breadwinner couples and pure female-breadwinner couples in terms of overall household incomes additionally mask gender-based differences in the labour earnings of non-breadwinning partners. A pure breadwinner household is, by definition, one in which the non-breadwinning partner does not ordinarily engage in paid employment. However, as aforementioned, LIS definitions of labour-force status and number of hours worked refer to

Figure 1. Economic characteristics of ‘pure male-breadwinner’ versus ‘pure female-breadwinner’ couples (left) and ‘one-and-a-half male-breadwinner’ versus ‘one-and-a-half female-breadwinner’ couples (right) by country.



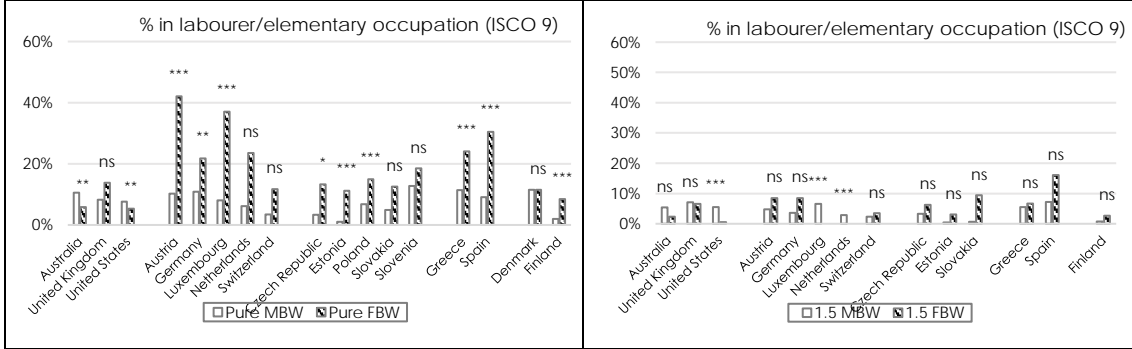


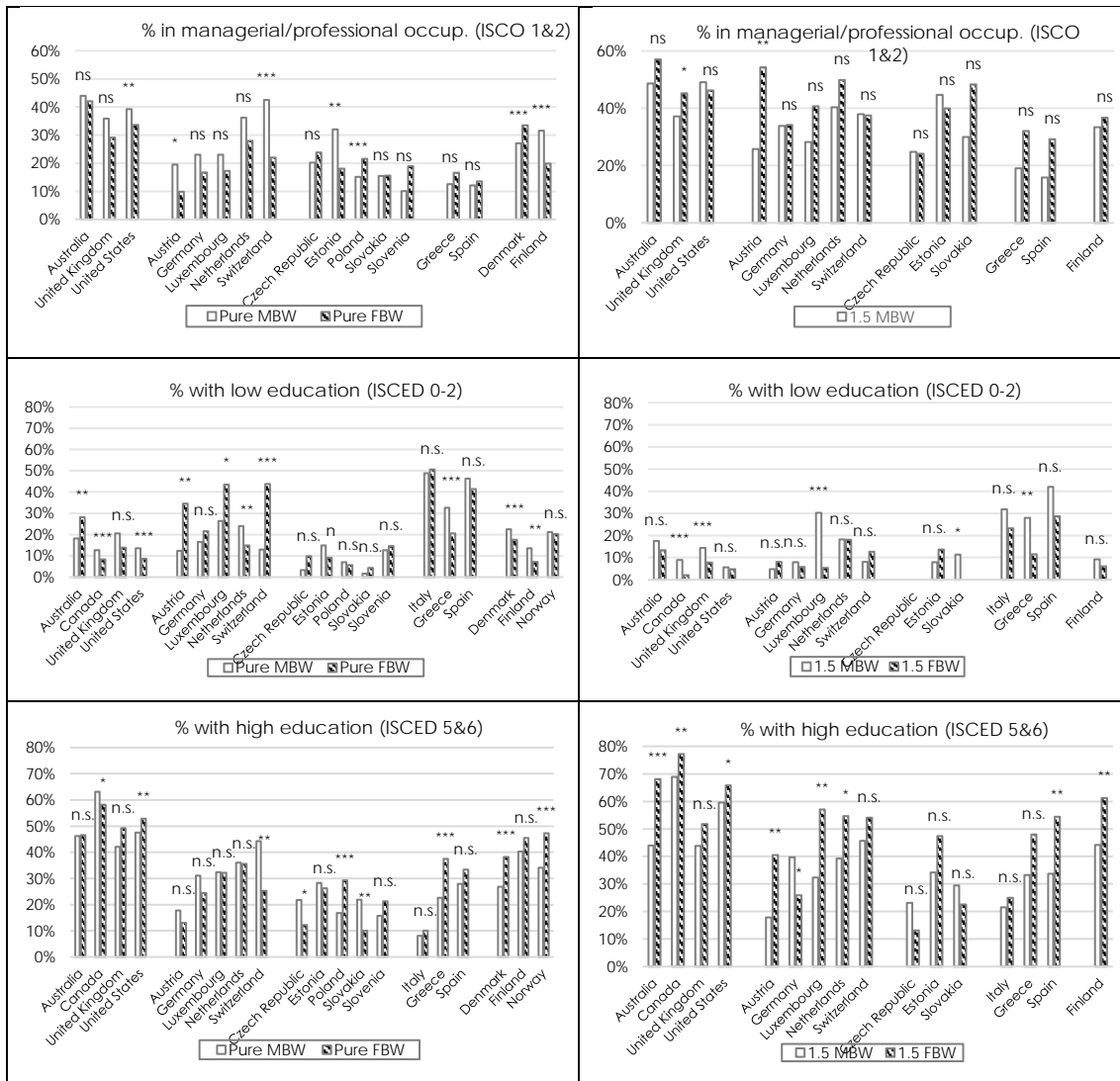
Notes: 'Pure MBW' = man is the only breadwinner; 'Pure FBW' = woman is the only breadwinner; '1.5 MBW' = man works ≥ 30 hours per week, woman works < 30 hours; '1.5 FBW' = woman works ≥ 30 hours per week, man works < 30 hours. Data on 1.5 MBWs and 1.5 FBWs are unavailable for Denmark, Norway, Poland, and Slovenia. Data on working hours are unavailable for Denmark, Norway, Poland and Slovenia. 'Ns' indicates that differences between Pure MBWs vs. Pure FBWs or 1.5 MBWs vs. 1.5 FBWs are not significant. * = $p < 0.1$; ** = $p < 0.05$; *** = $p < 0.001$; 'ns' = not statistically significant.

Sources: Luxembourg Income Study Wave 10 (~2016) or 9 (~2013); own calculations.

the week previously, whereas labour incomes are for the year. So, while the partners of pure breadwinners may not have engaged in paid work in the past week, they may have earned something over the last year. Moreover, our analyses reveal that this 'something' is often larger for men in pure female-breadwinner couples than for women in male-breadwinner couples,

Figure 2. Individual occupational and educational characteristics of 'pure male-breadwinners' versus 'pure female-breadwinners' (left) and 'one-and-a-half male-breadwinners' versus 'one-and-a-half female-breadwinners' (right) by country.





Notes: 'Pure MBW' = man is the only wage-earner; 'Pure FBW' = woman is the only wage-earner; '1.5 MBW' = man works ≥ 30 hours per week, woman works < 30 hours; '1.5 FBW' = woman works ≥ 30 hours, man works < 30 hours. Data on 1.5 MBWs and 1.5 FBWs are unavailable for Denmark, Norway, Poland, and Slovenia. Data on occupation are unavailable for Canada, Italy, and Norway. 'Ns' indicates that differences between Pure MBWs vs. Pure FBWs, or 1.5 MBWs vs. 1.5 FBWs are not significant. * = $p < 0.1$; ** = $p < 0.05$; *** = $p < 0.001$; 'ns' = not statistically significant.

Sources: Luxembourg Income Study Wave 10 (~2016) or 9 (~2013); own calculations.

and these differences are statistically significant (Figure 1c). This may point to the greater proclivity of men in pure female-breadwinner couples to 'do gender' (West and Zimmerman, 1987) by taking on occasional, ad-hoc paid jobs under the pressures of male breadwinning norms and ideals, which sporadically bring in small amounts of money throughout the year. This is perhaps something for future research to explore.

State benefits also play a role in reducing household income inequalities between pure male and female-breadwinner families. Among couples in receipt of social-security transfers, pure female breadwinners receive a higher income from social-security

benefits than pure male breadwinner across all regime-types, with the post-Soviet regime the only exception (Supplementary Material). This likely reflects the greater probability that men in pure female-breadwinner couples are registered 'unemployed' rather than in 'domestic and care work' or 'inactive' (Sánchez-Mira and O'Reilly, 2019). Accordingly, pure female-breadwinner couples often receive unemployment benefits in addition to other benefits. Conversely, women in pure male-breadwinner couples are typically economically inactive for caregiving purposes (e.g. Sánchez-Mira and O'Reilly, 2019). Unfortunately, data limitations prevent us from exploring whether this is the case, as the LIS variable on benefits is not comparable across countries.

One-and-a-Half Female Breadwinners

Across the sixteen countries for which we have data on one-and-a-half female breadwinners, we see that, unsurprisingly, these women have higher average household incomes than pure female breadwinners, with Canada and Estonia the only exceptions (Table 1). As individuals, women heading one-and-a-half female-breadwinner couples also have higher average labour earnings than women heading pure female-breadwinner couples (Figure 1a-b). One-and-a-half female breadwinners are additionally more likely than pure female breadwinners to be highly educated and in managerial and professional occupations, and are less likely to be lower-educated or to work in elementary occupations (Figure 2). Thus, our findings suggest that female breadwinning is stratified by class: while 'pure' female breadwinners tend to be lower-educated and poorer, one-and-a-half female-breadwinner families are more likely to be headed by highly educated, professional women and be better-off overall.

When examining differences among one-and-a-half breadwinners by gender, we find smaller total household income differences than for pure breadwinners (Table 1). In seven countries, one-and-a-half male-breadwinner households have higher incomes than their female counterparts. However, these differences are narrow and statistically significant only in Canada. In the remaining countries, one-and-a-half female breadwinners have higher household incomes. Yet, these differences are again small, although they are statistically significant (and comparatively large) in Luxembourg, the Czech Republic, and Italy.

Nevertheless, as for pure breadwinners, one-and-a-half female breadwinners earn less *as individuals* than their male counterparts in all countries bar Luxembourg. While these gender earnings differentials are narrower than for pure breadwinners, one-and-a-half female breadwinners' earnings disadvantage is substantively and statistically significant across most countries, with the United States and Germany having the largest gaps (Figure 1b). The factors behind this finding are, however, less clear. While women heading one-and-a-half female-breadwinner couples work fewer hours on average than their male counterparts, these differences are slight. Furthermore, a greater proportion of women heading one-and-a-half female-breadwinner households are highly educated compared with men heading one-and-a-half male-breadwinner households, and occupational differences between the two are not substantively or statistically significant in most countries.

That said, a limitation of our analysis is the use of major ISCO-08 occupational categories only. Disaggregating these broad categories may reveal more nuanced occupational differences that help to explain female breadwinners' relative earnings disadvantage. For instance, it could be that a larger proportion of female breadwinners are in lower-paying professional occupations (e.g. early childhood teacher), whereas a larger proportion of male breadwinners are in higher-paying professional occupations (e.g. civil engineer). Unfortunately, the very small cell sizes that using finer occupational categories would entail prevents us from examining this further (Hook and Pettit, 2016).

As for pure breadwinners, the second earner's (i.e. the man's) labour income is critical for narrowing inequalities between one-and-a-half female-breadwinners and one-and-a-half male-breadwinners in terms of their overall household incomes. Across all countries bar Luxembourg, Estonia, Slovakia, and Spain, male second earners in one-and-a-half female-breadwinner couples have higher average earnings than women who are second earners in one-and-a-half male-breadwinner couples. (Figure 2d). In addition, one-and-a-half female-breadwinner households generally receive more in social security transfers than one-and-a-half male-breadwinner households, except for the Conservative regime only (Supplementary Material), further helping to narrow disparities in overall household incomes.

Concluding Remarks

While income disparities between male-breadwinner couples and female-breadwinner couples are small and insignificant in many countries, they are far larger in others. Thus, being in a female-breadwinner household is just as much if not more of a poverty risk as being in a male-breadwinner household. And even where gaps between female-breadwinner and male-breadwinner couples in terms of overall household incomes are narrower, this is not necessarily indicative of gender equality. Rather, breadwinning remains a gendered opportunity: women who are their households' main or sole breadwinner earn significantly less than men who are main or sole breadwinners across almost all countries.

This female breadwinner earnings penalty is indicative of the gendered logics underpinning social policies and the gendered nature of labour markets. Despite the gender-neutral language of social investment, policies in many countries uphold women's secondary labour market position by encouraging them to withdraw or reduce their labour-force participation for motherhood and caregiving. In turn, women accumulate less on-the-job experience and seniority than men, are more likely to pass up additional workplace responsibilities, and experience greater discrimination from employers, who (falsely) assume that women will be less committed to their careers. Additionally, women may forgo higher-paying and often demanding occupations for those offering more flexible and part-time options that fit around their unpaid work, but which tend to be female-dominated and lower-paid. All these factors mean that women's earnings growth tends to be lower over time compared with men (Budig and England, 2001). They might also explain why we see larger earnings penalties for female breadwinners in countries where policies encourage mothers to take long breaks from employment, adequate alternatives to home-based childcare are lacking, traditional gender norms remain strong, and/or the 'one-and-a-half male breadwinner' prevails, such as Germany, Estonia, and the United States (e.g. Ciccio and Bleijenbergh, 2014; Hook and Pettit, 2016). In these settings, female breadwinners are even more likely to have had discontinuous employment histories characterised by periods spent working in part-time and/or 'flexible' (and lower-paid) jobs when compared with their male counterparts.

Prior research has suggested that lower-educated women's employment behaviours are particularly sensitive to work/family policy interventions. Lower-educated women are more likely to take up long parental leaves than highly educated women, as their lower earnings potential means they have less to lose in terms of foregone earnings. Furthermore, lower educated women typically attach less importance to their careers (Morgan and Zippel, 2003). In other countries, where inadequate work/family policies or options for part-time working create 'all-or-nothing' employment choices, lower-educated mothers may be forced out of the labour market altogether (e.g. Esping-Andersen, 2009). Thus, we might expect lower-educated female breadwinners to have more disrupted career histories. This might help to explain why we see a larger gender earnings gap among pure breadwinners than for one-and-a-half breadwinners, since pure female breadwinners are more likely to have lower levels of education.

This education gap between pure female breadwinners and one-and-a-half female breadwinners is especially large in certain Continental and Southern European countries. So, while Hook (2015) finds that Southern European countries polarise between dual full-time and pure male-breadwinner couples, we find these countries and certain Continental ones (especially Luxembourg and Switzerland), are polarising with respect to female breadwinning, too. Pure female breadwinners are more likely to be headed by women with lower levels of education, whereas one-and-a-half female-breadwinner couples are more likely to be headed by highly educated women. Accordingly, it is possible that the rise in female breadwinning will, alongside the growth of single-mother families among lower-educated women and dual breadwinning among highly educated women, consolidate the 'diverging destinies' (p. 27) of families: while children born to highly educated mothers are gaining advantages, children born to mothers with lower levels of education are falling behind (Hook, 2015).

The female breadwinner earnings penalty may also reflect that many of these women are 'emergency' breadwinners, especially when it comes to pure female breadwinners. That is, women's breadwinner status may be less a deliberate choice rooted in gender-egalitarian ideals, and more a reaction to adverse economic circumstances (Drago et al., 2005; Vitali and Arpino, 2016). Prior research has shown an association between male job loss and female breadwinning (e.g. Dotti Sani, 2018). Potentially, then, many female breadwinners are women who have moved from inactivity or part-time employment and

into being the sole breadwinner when their partner is laid off. This may also mean women have to abruptly change careers to get more hours, even if they have less experience and expertise in this area. Under these circumstances, female breadwinners' earnings potential is dampened. Indeed, we find that female breadwinners - particularly those with a partner not in paid work - suffer among the largest earnings disadvantages relative to male breadwinners in Italy, Spain, and Estonia, where male unemployment remains high (e.g. Bettio and Verashchagina, 2013).

Yet, if the effects of recessions are not to be concentrated on the most vulnerable, then governments must reduce the poverty risks associated with male job loss and ensure that households are not worse-off when the woman becomes the breadwinner. To this aim, the current policy imperative towards 'employment for all', with its overriding focus on the quantity of women's employment, regardless and often at the expense of its quality, is found wanting. What is needed is a broader array of policies designed to reduce gender gaps in earnings and not just employment rates (Harkness and Evans, 2011). These might include, among others, educational programmes to counter gender stereotypes and gendered educational choices, policies that encourage men to take up parental leaves, and measures to tackle low pay in feminised occupations (Bettio and Verashchagina, 2009).

Our analysis is a first step towards integrating the female-breadwinner couple into the literature on work/family arrangements across different welfare states. Going forward, future research should examine the division of unpaid care and domestic work within these couples. Does being in a female-breadwinner couple empower women to negotiate a more equal division of unpaid work and change male attitudes and behaviours in relation to domestic work? Or do men and women in female-breadwinner couples attempt to 'compensate' for deviating from male breadwinning norms by maintaining traditional gender roles in the home, so that women take on a 'double shift' of paid and unpaid work? How does this vary by a couple's class position? Research carried out so far has produced mixed results (e.g. Demantas and Myers, 2015; Lyonette and Crompton, 2015). Meanwhile, additional longitudinal studies that investigate transitions into female breadwinning can potentially paint a fuller picture of the factors that underpin female breadwinners' earning disadvantages. Are these women disproportionately from male-breadwinner families? Does the 'motherhood penalty' explain the female breadwinner penalty?

Furthermore, while our study has suggested that state transfers have a role to play in narrowing income disparities between female-breadwinner and male-breadwinner households, more research is needed to establish how (in)effective different policies and welfare regimes are in improving the incomes of female-breadwinner couples.

Notes

¹The extent to which welfare states support female breadwinners is only one 'litmus test' of gender equality; the treatment of lone parents – most of whom are women – is important, too (e.g. Kowalewska, 2017). However, this is beyond the remit of this paper.

²For example, agricultural products for self-consumption.

³This rule applies to most countries except for Canada, Finland, Italy, Norway and the Netherlands, for which the main activity status in the 'current period' is used, which depends on the country survey.

Acknowledgements

Most parts of this paper were written while the authors were affiliated at the University of Southampton. The authors thank participants of the Family Lunch Research Group at the University of Southampton and the Female-Breadwinner Families Workshop, London, 12 December 2018, for their helpful comments on the research.

Funding

This research was funded by the Economic and Social Research Council under the Future Research Leaders Grant, 'Female-Breadwinner Families in Europe,' reference number ES/N00082X/1.

References

- Bettio F and Verashchagina A (2009) Gender Segregation in the Labour Market. Report, European Union, Luxembourg, March.
- Bettio F and Verashchagina A (2013) Women and Men in the 'Great European Recession'. In: Karamessini M and Rubery J (eds) *Women and Austerity*. London: Routledge, pp.57–81.

- Bryan M and Longhi S (2018) Couples' Labour Supply Responses to Job Loss. *The Manchester School* 86(3): 333-357.
- Budig M and England P (2001) The Wage Penalty for Motherhood. *American Sociological Review* 66(2): 204-225.
- Ciccia R and Bleijenbergh I (2014) After the Male Breadwinner Model? Childcare Services and the Division of Labour in European Countries. *Social Politics* 21(1): 50-79.
- Connolly S and Gregory M (2008) Moving Down: Women's Part-Time Work and Occupational Change in Britain 1991-2001. *Economic Journal* 118(526): F52-F76.
- Craig L and Mullan K (2010) Parenthood, Gender and Work-Family Time in the United States, Australia, Italy, France, and Denmark. *Journal of Marriage and Family* 72(5): 1344-1361.
- Daly M (2011) What Adult Worker Model? A Critical Look at Recent Social Policy Reform in Europe from a Gender and Family Perspective. *Social Politics* 18(1): 1-23.
- Demantas I and Myers K (2015) "Step up and Be a Man in a Different Manner": Unemployed Men Reframing Masculinity. *The Sociological Quarterly* 56(4): 640-664.
- Dotti Sani GM (2018) The Economic Crisis and Changes in Work-Family Arrangements in Six European Countries. *Journal of European Social Policy* 28(2): 177-193.
- Drago R, Black D and Wooden M (2005) Female Breadwinner Families. *Journal of Sociology* 41(4): 343-362.
- Ellingsæter AL (2012) Cash for Childcare: Experiences from Finland, Norway and Sweden. Report, Friedrich Ebert Foundation, Berlin, April.
- Esping-Andersen G (1999) *Social Foundations of Postindustrial Economies*. Oxford: Oxford University Press.
- Esping-Andersen G (ed.) (2002) *Why We Need a New Welfare State*. Oxford: Oxford University Press.
- Esping-Andersen G (2009) *The Incomplete Revolution*. Cambridge: Polity Press.
- Esping-Andersen G (2016) *Families in the 21st Century*. Stockholm: SNS Förlag.
- Estévez-Abe M (2006) Gendering the Varieties of Capitalism. *World Politics* 59(1): 142-175.
- Gerson K (2010) *The Unfinished Revolution*. Oxford: Oxford University Press.
- Gornick JC and Meyers MK (2008) Creating Gender Egalitarian Societies: An Agenda for Reform. *Politics and Society* 36(3): 313-349.

- Gornick JC and Meyers MK (2009) Institutions That Support Gender Egalitarianism in Parenthood and Employment. In: Gornick JC and Meyers MK (eds) *Gender Equality: Transforming Family Divisions of Labour*. New York: Verso, pp.3-64.
- Haas B, Steiber N, Hartel M and Wallace C (2006) Household Employment Patterns in an Enlarged European Union. *Work, Employment and Society*20(4): 751-771.
- Harkness S and Evans M (2011) The Employment Effects of Recession on Couples in the UK. *Journal of Social Policy*40(4): 675-693.
- Hemerijck A, Burgoon B, Di Pietro A and Vydra S (2016) Assessing Social Investment Synergies. Report, European Commission, Brussels, October.
- Hook J (2015) Incorporating 'Class' into Work-Family Arrangements. *Journal of European Social Policy*25(1): 14-31.
- Hook J and Pettit B (2016) Reproducing Occupational Inequality: Motherhood and Occupational Segregation. *Social Politics*23(3): 329-362.
- Jenson J (2015) The Fading Goal of Gender Equality. *Social Politics*22(4): 539-560.
- Kanji S (2013) Do Fathers Work Fewer Paid Hours When Their Female Partner Is the Main or an Equal Earner? *Work, Employment and Society*27(2): 326-342.
- Karamessini M and Rubery J (eds.) (2013) *Women and Austerity*. Abingdon: Routledge.
- Korpi W (2000) Faces of Inequality: Gender, Class, and Patterns of Inequalities in Different Types of Welfare States. *Social Politics*7(2): 127-191.
- Kowalewska H (2017) Beyond the 'Train-First'/'Work-First' Dichotomy: How Welfare States Help or Hinder Maternal Employment. *Journal of European Social Policy* 27(1): 3-24.
- Lewis J (2001) The Decline of the Male Breadwinner Model. *Social Politics*8(2): 152-169.
- Lewis J (2009) *Work-Family Balance, Gender and Policy*. Cheltenham: Edward Elgar.
- Lewis J, Campbell M and Huerta C (2008) Patterns of Paid and Unpaid Work in Western Europe. *Journal of European Social Policy*18(1): 21-37.
- Luxembourg Income Study (LIS) Database (n.d.) <http://www.lisdatacenter.org>. (multiple countries; accessed May 2018 to March 2019). Luxembourg: LIS.
- Lyonette C and Crompton R (2015) Sharing the Load? Partners' Relative Earnings and the Division of Domestic Labour. *Work, Employment and Society*29(1): 23-40.
- Mandel H and Semyonov M (2006) A Welfare State Paradox. *American Journal of Sociology*111(6): 1910-1949.
- Manning A and Petrongolo B (2008) The Part-Time Pay Penalty for Women in Britain. *Economic Journal*118(526): F28-F51.

- Morgan KJ and Zippel K (2003) Paid to Care: The Origins and Effects of Care Leave Policies in Western Europe. *Social Politics*10(1): 49-85.
- Sánchez-Mira N and O'Reilly J (2019) Household Employment and the Crisis in Europe. *Work, Employment and Society*33(3): 422-443.
- Saraceno C (2015) A Critical Look to the Social Investment Approach from a Gender Perspective. *Social Politics*22(2): 257-269.
- Saraceno C and Keck W (2011) Towards an Integrated Approach for the Analysis of Gender Equity in Policies Supporting Paid Work and Care Responsibilities. *Demographic Research*25(1): 371-406.
- Van Bavel J and Klesment M (2017) Educational Pairings, Motherhood, and Women's Relative Earnings in Europe. *Demography*54(6): 2331-2349.
- Vitali A and Arpino B (2016) Who Brings Home the Bacon? The Influence of Context on Partners' Contributions to the Household Income. *Demographic Research*35(41): 1213-1244.
- Von Gleichen R and Seeleib-Kaiser M (2018) Family Policies and the Weakening of the Male Breadwinner Model. In: Shaver S (ed) *Handbook on Gender and Social Policy*. Cheltenham: Edward Elgar, pp.153-178.
- West C and Zimmerman DH (1987) Doing Gender. *Gender and Society*1(2): 125-151.
- Wilcoxon F (1945) Individual Comparisons by Ranking Methods. *Biometrics Bulletin*1(6): 80-83.

Appendix

Table A1. Distribution of household-level employment arrangements among heterosexual couples by country.

	Pure MBW	1.5 MBW	DBW	1.5 FBW	Pure FBW	Total	Sample size	Year
Australia	22.32%	25.50%	45.47%	2.04%	4.68%	100%	4,105	2014
Canada	21.88%	12.03%	54.00%	2.51%	9.58%	100%	8,738	2013
United Kingdom	13.90%	25.42%	55.65%	2.40%	2.63%	100%	5,595	2016
United States	23.82%	9.83%	61.47%	1.41%	3.46%	100%	19,893	2016
Austria	17.80%	30.79%	46.10%	1.72%	3.58%	100%	1,540	2013
Germany	16.57%	31.57%	45.09%	2.11%	4.66%	100%	3,976	2015
Luxembourg	21.93%	22.95%	49.71%	1.49%	3.92%	100%	1,355	2013
Netherlands	20.51%	42.93%	30.43%	2.10%	4.04%	100%	3,971	2013
Switzerland	23.46%	30.31%	40.84%	2.04%	3.36%	100%	1,937	2013
Czech Republic	20.33%	3.98%	72.43%	0.50%	2.75%	100%	2,345	2013
Estonia	17.13%	5.46%	70.48%	2.02%	4.92%	100%	1,437	2013
Poland*	24.49%	-	71.53%	-	3.98%	100%	12,342	2016
Slovakia	18.80%	2.87%	74.63%	0.58%	3.12%	100%	1,560	2013
Slovenia*	16.21%	-	76.50%	-	7.29%	100%	1,204	2012
Italy	39.61%	15.35%	39.33%	0.87%	4.83%	100%	2,106	2014
Greece	43.12%	6.63%	39.59%	2.18%	8.48%	100%	2,212	2013
Spain	34.57%	10.92%	42.87%	1.09%	10.54%	100%	3,633	2013
Denmark*	10.10%	-	84.77%	-	5.13%	100%	23,551	2013
Finland	16.97%	6.42%	67.18%	2.00%	7.42%	100%	4,661	2013
Norway*	10.17%	-	87.63%	-	2.19%	100%	65,536	2013

Notes. To correct for under-sampling, we use weighted percentages for all countries. Country sample sizes are unweighted. The following five categories are used: (1) 'Pure MBW' = man is the only wage-earner; (2) '1.5 MBW' = man works full-time (≥ 30 hours per week), woman works part-time (< 30 hours); (3) 'DBW' = man and woman share breadwinning; (4) '1.5 FBW' = woman works full-time, man works part-time; (5) 'FBW' = woman is the only wage-earner. For countries marked with *, only three categories are used due to data limitations: (1) 'MBW' = only the man works; (2) 'DB' = both partners are in employment (any hours); (3) 'FBW' = only the woman works.

Sources. Luxembourg Income Study Wave 10 (~2016) or 9 (~2013); own calculations.

Supplementary Material

Table S1. Summary table of couple-types' characteristics, Anglo-Saxon countries.

	MBW	FBW	DBW	1.5 MBW	1.5 FBW
Sample size	8,251	1,898	21,796	5,684	702
Couple type	20.34%	5.29%	53.89%	18.34%	2.13%
Mean hours worked by woman in last week	N/A	34	40	19	39
Mean hours worked by man in last week	43	N/A	43	44	20
Median labour income of woman in last 12 months	\$0	\$16,000	\$19,470	\$7,394	\$20,495
Median labour income of man in last 12 months	\$23,962	\$0	\$24,884	\$24,840	\$7,826
Median annual disposable household income	\$26,023	\$27,261	\$40,970	\$32,470	\$30,005
% couples receiving any social security transfers	72.61%	76.11%	49.67%	61.62%	64.76%
Median income from social security transfers (among claimants only)	\$3,159	\$7,028	\$1,014	\$1,419	\$3,117
% women holding multiple jobs	N/A	3.76%	5.45%	6.39%	4.98%
% men holding multiple jobs	3.69%	N/A	4.89%	5.37%	8.06%
% women in permanent job	N/A	89.63%	94.78%	89.64%	90.58%
% men in permanent job	92.02%	N/A	93.12%	95.89%	81.78%
% of women in elementary occupations	N/A	7.80%	4.58%	10.21%	3.79%
% of men in elementary occupations	8.92%	N/A	6.88%	6.17%	14.06%
% of women in managerial /professional occupations	N/A	36.26%	41.16%	26.97%	49.65%
% of men in managerial /professional occupations	40.24%	N/A	39.88%	43.71%	32.77%
Mean number of co-residing own children	1.60	0.88	1.08	1.51	0.92
Mean age of youngest co-residing own child	7.39	12.36	10.41	8.56	11.19
% women with high education	45.55%	53.77%	62.52%	52.08%	66.13%
% men with high education	50.96%	48.23%	53.45%	50.33%	55.40%
% women with low education	19.02%	13.44%	7.32%	11.84%	6.75%
% men with low education	15.76%	17.85%	10.68%	13.40%	9.83%
Mean age of woman	42.00	48.23	42.11	42.96	45.87
Mean age of man	43.11	49.50	42.90	43.69	47.60

Notes. All monetary amounts are in 2016 US\$. Anglo-Saxon countries include Australia, Canada, the United Kingdom and the United States. However, data for some variables are not available for all countries; hence, some figures are averages of only some of these countries.

Sources. Luxembourg Income Study Wave 10 (~2016) or 9 (~2013); own calculations.

Table S2. Summary table of couple types' characteristics, Continental countries

	MBW	FBW	DBW	1.5 MBW	1.5 FBW
Sample size	2,400	478	4,983	4,694	224
Couple type	20.42%	3.87%	42.20%	31.65%	1.86%
Mean hours worked by woman in last week	N/A	32	39	19	40
Mean hours worked by man in last week	43	N/A	44	43	20
Median labour income of woman in last 12 months	\$0	\$14,585	\$22,275	\$10,034	\$28,278
Median labour income of man in last 12 months	\$27,049	\$4,410	\$29,041	\$29,177	\$12,499
Median annual disposable household income	\$25,974	\$25,981	\$40,674	\$32,040	\$37,262
% couples receiving any social security transfers	81.01%	84.69%	60.68%	82.57%	66.85%
Median income from social security transfers (among claimants only)	\$3,281	\$6,456	\$2,401	\$2,329	\$3,021
% women holding multiple jobs	N/A	5.04%	8.34%	6.29%	9.94%
% men holding multiple jobs	4.79%	N/A	6.01%	6.15%	4.79%
% women in permanent job	N/A	92.47%	92.70%	92.04%	91.95%
% men in permanent job	93.34%	N/A	94.68%	94.77%	78.76%
% of women in elementary occupations	N/A	28.35%	9.00%	13.09%	3.42%
% of men in elementary occupations	7.22%	N/A	3.97%	3.89%	4.26%
% of women in managerial /professional occupations	N/A	19.41%	31.87%	22.31%	43.88%
% of men in managerial /professional occupations	29.84%	N/A	34.64%	34.12%	36.77%
Mean number of co-residing own children	1.66	1.34	0.98	1.57	1.00
Mean age of youngest co-residing own child	9.52	10.33	11.36	9.78	11.49
% women with high education	19.45%	27.12%	37.93%	28.22%	48.32%
% men with high education	33.36%	17.75%	36.28%	35.21%	43.38%
% women with low education	30.37%	31.83%	14.14%	16.91%	10.77%
% men with low education	19.35%	33.50%	14.11%	14.59%	10.74%
Mean age of woman	42.50	43.55	41.36	43.08	44.49
Mean age of man	45.70	45.87	43.99	45.30	47.91

Notes. All monetary amounts are in 2016 US\$. Continental countries include Austria, Germany, Luxembourg, the Netherlands and Switzerland. However, data for some variables are not available for all countries; hence, some figures are averages of only some of these countries.

Sources. Luxembourg Income Study Wave 10 (~2016) or 9 (~2013); own calculations.

Table S3. Summary Table of couple types' characteristics, Central and Eastern European countries

	MBW	FBW	DBW	1.5 MBW	1.5 FBW
Sample size	4,081	746	13,807	208	46
Couple type	19.64%	4.34%	73.18%	2.30%	0.54%
Mean hours worked by woman in last week	N/A	41	41	20	42
Mean hours worked by man in last week	45	N/A	44	44	19
Median labour income of woman in last 12 months	\$0	\$6,804	\$7,325	\$2,901	\$6,875
Median labour income of man in last 12 months	\$9,298	\$0	\$9,816	\$10,994	\$3,024
Median annual disposable household income	\$12,639	\$11,343	\$18,411	\$14,422	\$11,181
% couples receiving any social security transfers	77.99%	77.16%	55.15%	72.90%	73.91%
Median income from social security transfers (among claimants only)	\$2,646	\$1,931	\$672	\$1,171	\$968
% women holding multiple jobs	N/A	3.36%	2.43%	3.67%	14.45%
% men holding multiple jobs	2.82%	N/A	3.25%	4.04%	0.28%
% women in permanent job	N/A	80.07%	88.96%	71.56%	96.89%
% men in permanent job	87.32%	N/A	91.87%	92.78%	71.17%
% of women in elementary occupations	N/A	14.90%	7.85%	19.36%	5.09%
% of men in elementary occupations	5.82%	N/A	3.79%	1.59%	10.44%
% of women in managerial /professional occupations	N/A	19.55%	28.04%	31.57%	38.34%
% of men in managerial /professional occupations	17.81%	N/A	23.75%	33.24%	40.11%
Mean number of co-residing own children	1.72	1.24	1.39	1.57	1.48
Mean age of youngest co-residing own child	7.39	14.47	12.25	10.67	11.38
% women with high education	24.04%	20.86%	36.63%	33.38%	34.87%
% men with high education	20.24%	11.07%	27.20%	28.69%	33.07%
% women with low education	10.97%	9.70%	4.16%	5.10%	7.88%
% men with low education	7.07%	14.46%	4.89%	5.63%	9.62%
Mean age of woman	38.83	45.48	42.51	42.72	43.69
Mean age of man	40.68	45.62	43.74	44.17	43.41

Notes. All monetary amounts are in 2016 US\$. CEE countries include the Czech Republic, Estonia, Poland, Slovakia and Slovenia. However, data for some variables are not available for all countries; hence, some figures are averages of only some of these countries. Notably, the 1.5 MBW and 1.5 FBW categories refer to the Czech Republic, Estonia and Slovakia only, as data for the other two countries do not allow us to identify 1.5 couples.

Sources. Luxembourg Income Study Wave 10 (~2016) or 9 (~2013); own calculations.

Table S4. Summary Table of couple types' characteristics, Mediterranean countries

	MBW	FBW	DBW	1.5 MBW	1.5 FBW
Sample size	3,091	657	3,217	870	116
Couple type	39.05%	7.96%	40.61%	11.01%	1.37%
Mean hours worked by woman in last week	N/A	37	40	19	41
Mean hours worked by man in last week	43	N/A	44	43	20
Median labour income of woman in last 12 months	\$0	\$8,516	\$11,378	\$5,605	\$11,438
Median labour income of man in last 12 months	\$12,071	\$0	\$13,727	\$13,022	\$6,245
Median annual disposable household income	\$12,751	\$11,923	\$23,793	\$18,977	\$18,077
% couples receiving any social security transfers	35.64%	60.17%	25.25%	27.75%	29.14%
Median income from social security transfers (among claimants only)	\$1,658	\$3,127	\$1,487	\$1,233	\$2,088
% women holding multiple jobs	N/A	1.83%	1.63%	1.66%	2.70%
% men holding multiple jobs	2.22%	N/A	3.08%	2.65%	11.43%
% women in permanent job	N/A	69.43%	86.03%	69.55%	85.19%
% men in permanent job	80.83%	N/A	87.70%	85.55%	55.82%
% of women in elementary occupations	N/A	27.58%	8.31%	25.65%	9.89%
% of men in elementary occupations	10.37%	N/A	6.91%	6.55%	13.61%
% of women in managerial /professional occupations	N/A	14.94%	28.15%	22.28%	31.13%
% of men in managerial /professional occupations	12.33%	N/A	24.28%	17.02%	38.97%
Mean number of co-residing own children	1.48	1.31	1.32	1.48	1.17
Mean age of youngest co-residing own child	11.69	11.80	10.85	10.92	12.70
% women with high education	16.63%	30.00%	44.60%	34.88%	44.83%
% men with high education	19.27%	20.32%	36.22%	27.94%	49.11%
% women with low education	43.45%	35.97%	18.56%	26.19%	18.62%
% men with low education	42.24%	0.4791	27.84%	34.44%	27.06%
Mean age of woman	43.80	43.10	43.03	43.47	44.69
Mean age of man	46.00	45.25	44.97	45.11	47.22

Notes. All monetary amounts are in 2016 US\$. Mediterranean countries include the Greece, Italy, and Spain. However, data for some variables are not available for all countries; hence, some figures are averages of only some of these countries.

Sources. Luxembourg Income Study Wave 10 (~2016) or 9 (~2013); own calculations.

Table S5. Summary Table of couple types' characteristics, Scandinavian countries

	MBW	FBW	DBW	1.5 MBW	1.5 FBW
Sample size	9,908	2,939	80,480	328	93
Couple type	12.57%	4.99%	79.43%	2.29%	0.71%
Mean hours worked by woman in last week	N/A	35	39	20	39
Mean hours worked by man in last week	40	N/A	41	42	19
Median labour income of woman in last 12 months	\$896	\$16,621	\$19,357	\$8,428	\$18,112
Median labour income of man in last 12 months	\$21,443	\$3,967	\$26,127	\$19,905	\$10,632
Median annual disposable household income	\$24,566	\$24,612	\$36,346	\$25,699	\$26,210
% couples receiving any social security transfers	91.19%	90.61%	77.82%	85.79%	79.59%
Median income from social security transfers (among claimants only)	\$5,800	\$6,673	\$1,727	\$2,974	\$3,548
% women holding multiple jobs	N/A	10.00%	13.53%	18.52%	14.77%
% men holding multiple jobs	13.33%	N/A	13.65%	17.69%	34.18%
% women in permanent job	N/A	82.53%	90.21%	78.72%	75.63%
% men in permanent job	92.99%	N/A	96.10%	95.89%	83.48%
% of women in elementary occupations	N/A	9.52%	5.51%	7.79%	2.67%
% of men in elementary occupations	4.95%	N/A	4.55%	0.72%	4.71%
% of women in managerial /professional occupations	N/A	24.81%	36.80%	18.49%	36.75%
% of men in managerial /professional occupations	30.14%	N/A	36.75%	33.41%	39.34%
Mean number of co-residing own children	1.47	0.94	1.25	1.28	0.82
Mean age of youngest co-residing own child	5.14	9.81	9.53	7.18	8.96
% women with high education	38.39%	43.41%	51.29%	45.77%	61.18%
% men with high education	35.37%	28.14%	39.34%	44.14%	46.55%
% women with low education	19.23%	12.30%	10.44%	6.96%	6.09%
% men with low education	17.62%	23.89%	13.12%	9.25%	12.58%
Mean age of woman	39.46	43.35	44.27	41.44	42.73
Mean age of man	39.40	43.12	43.79	41.85	42.95

Notes. All monetary amounts are in 2016 US\$. Scandinavian countries include Denmark, Finland and Sweden. However, data for some variables are not available for all countries; hence, some figures are averages of only some of these countries. Notably, the 1.5 MBW and 1.5 FBW categories refer to Finland only, as data for the other two countries do not allow us to identify 1.5 couples

Sources. Luxembourg Income Study Wave 10 (~2016) or 9 (~2013); own calculations.