Households with children by breadwinner type: incomes, poverty and child caretaking

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ABSTRACT

Women, particularly mothers, confront numerous challenges when striving to attain a balance between their work and personal lives. They often encounter obstacles when entering the job market, earning lower wages, and juggling household responsibilities, childcare, and careers. This study delves into the disparities among households with children based on the gender of the primary earner, investigating their income levels, attitudes, and distribution of childcare tasks. Data from the "Generation and Gender Survey" (GGS) is employed. The GGS is an international survey that examines inter-generational and gender dynamics, family interactions, fertility patterns, and other related aspects. The analysis employs various methods, including descriptive data analysis, comparative assessment and regression modelling. The research focuses on three countries with varying welfare and gender systems, child poverty rates, female workforce participation, and economic development: Bulgaria, France, and the Netherlands. The findings underscore variations in the prevalence of female breadwinner households across these nations. Bulgaria demonstrates the highest proportion, trailed by France and the Netherlands. Households with earnings homogamy generally boast the highest incomes. Notably, Bulgaria exhibits the largest share of economically disadvantaged households. Moreover, the study reveals attitudes concerning women's higher earnings within a household and the division of child caretaking tasks across countries and household types. Given that growing up in financially struggling households often has adverse effects on children, comprehending the contributing factors to this dynamic and disparities within households holds significant importance. This study further contributes insights into the efficacy of family-oriented policies, shedding light on their impact and effectiveness.
Keywords: economic deprivation, gendered work-life balance, generations and gender survey, household income

1. INTRODUCTION

Mothers in the labour market face substantial challenges, often resulting in lower incomes and employment rates. Growing up in financially struggling households can have adverse effects on children. Thus, understanding the contributing factors to this dynamic and disparities within households holds significant importance. Topics like earnings homogamy, female breadwinners, and female labour supply have piqued interest in sociology and economics. The importance of comprehending the female position in the labour market, particularly for mothers, was underscored by the 2023 recipient of the Sveriges Riksbank Prize in Economic Sciences, Claudia Goldin, whose research illuminated the negative effects of the first child on gender disparities in the job market (Nobel prize, 2023). Research by Kowalevska and Vitali (2021, 2023) revealed that female breadwinner households face a well-being and earnings penalty compared to male breadwinner households. Moreover, welfare systems fail to compensate for this penalty adequately. Figari et al. (2011) observed variations in within-couple equalisation through tax-benefit systems across countries influenced by the gender of the higher earner. Magda et al. (2023) analysed the Polish GGS survey to explore equality at work and home for couples. They concluded that the female share of total household income is negatively related to women's heavy involvement in housework.

In less traditional households, women are more likely to share housework equally. Colombino and Narazani (2012) explored potential solutions to narrowing the pay gap: gender-based taxation, wage subsidies or basic income. The authors conclude that subsidies for lower wages and unconditional transfers are better in welfare outcomes for the whole population than gender-based taxation. Drago et al. (2005) emphasised the need to differentiate between persistent and temporary female breadwinner households due to their differing characteristics and to distinguish between economic and gender equity in temporary female breadwinner households. Further research is required to explore earnings homogamy and its impact on (in)equality within households and strategies to bridge these gaps. This study aims to analyse incomes in various household types based on the gender of the primary earner, shed light on child poverty, and explore the division of child caretaking. The comparison of countries with diverse welfare and gender regimes—Bulgaria, France, and the Netherlands—provides valuable insights. The Netherlands, with its low child poverty rates and high mothers' employment, is the most developed country. In contrast, with its high child poverty rates and low maternal employment, Bulgaria represents the least developed. France falls in between, boasting high expenditures on family/children social protection benefits. Table 1 presents the chosen indicators for the three countries.

Country/Indicator	GDP per capita in PPS (2021)	Children at risk of poverty or social exclusion (in %, 2021)	Employment rate of mothers in couples with children (in %, 2021)	Expenditure on Family/Children benefits (% of GDP, 2021)
Bulgaria	57	33	67.1	1.6
France	104	22.8	71.3	2.5*
The Netherlands	129	14.9	81.6	1.3

*Table 1: Socio-economic indicators; * for 2020*
(Source: author based on Eurostat (2023))

Using statistical methods, this preliminary study aims to inform policymakers about the challenges faced by female breadwinner households, with the ultimate goal of enhancing family policies, especially concerning work-family reconciliation. Efforts should be intensified to minimise income and other disparities for mothers. A cross-country comparison has implications by identifying patterns for more EU countries. The structure of this preliminary study is as follows: following this introduction, the second section elaborates on the data and methods used. The third section presents the survey analysis results, and the final section concludes with a summary, limitations, and suggestions for future research.

2. DATA AND METHODS

The study utilises data from the Generations and Gender Survey (GGS) (Gauthier et al., 2018), coordinated by the Generations and Gender Programme (GGP) of the Netherlands Interdisciplinary Demographic Institute. The GGS data was collected to investigate demographic behaviours and socio-economic trends in industrialised nations, primarily in Europe. The primary objective of the Generations and Gender Programme is to initiate analyses of the developments and determinants of a wide range of demographic and social phenomena related to family formation processes, demographic changes, intergenerational relationships, and more. GGS is a panel study that provides data at the household level. The survey is currently in its second round, while this study is based on data from round I. The analysis focuses on three countries: Bulgaria (wave 2), France (wave 3), and the Netherlands (wave 3). Interviews were conducted 2007 in Bulgaria, 2010 in France, and 2010/2011 in the Netherlands.

The choice of these waves is motivated by their status as the most recent data available. The sample used in the analysis comprises heterosexual couples with children in the household. In Bulgaria, the sample size consists of 4,447 couples (8,154 children); in France, 1,991 couples (4,360 children); and in the Netherlands, 1,679 couples (4,055 children). The majority of respondents are women. Weighted samples were employed: probability weights for Bulgaria and the Netherlands, and frequency weights for France. The analysis commences by determining the breadwinner type of a household based on the partners' net income share in the household income. Each partner's regular sources of income (received monthly or weekly) are converted to yearly income and summed with irregular income. The mean of the range was used for respondents who provided a range for their income. After calculating each partner's share in the household income, households are categorised into four types:

1) Earnings homogamy: if partners contribute to 45-55% of household income
2) Male breadwinner household: when the male partner contributes to more than 55% of household income
3) Female breadwinner household: when the female partner contributes to more than 55% of household income
4) No income household: when household income is equal to zero.

The study then descriptively analyses the income distribution and prevalence of each household type. Furthermore, a regression analysis explores the contributing factors to household income levels. To assess economic deprivation and gain insights into child poverty levels, equivalised household incomes are compared to a relative poverty line (60% of the equivalised median net income in the sample). A square root equivalised scale and a relative poverty line are employed to estimate the poverty headcount (Foster et al., 1984; OECD, 2020). The DASP Stata package was used for calculations (Araar and Duclos, 2007) on the entire survey sample. An analysis of households who are "able to make ends meet" with (great) difficulty, as a subjective measure of economic deprivation, is conducted. Finally, the study examines child caretaking tasks and opinions on parenting and earnings across household breadwinner types and countries. Descriptive analysis is performed, and the chi-square test is used to identify potential statistically significant differences. A logistic regression examines the probability that the mother is the primary child caretaker. The analysis for child caretaking tasks is based on questions for households with children younger than 14 (or 6 in the Netherlands) present in the household.

3. RESULTS
This section summarises the main findings of the study. Results are presented in three subsections.

3.1. Income distribution and determinants
Table 2 presents basic descriptive statistics for the three countries, categorising households with children into four types based on partners' income share and gender. Male breadwinner households prevail in all three countries. There is a slightly higher presence of female breadwinner households in Bulgaria and the Netherlands compared to earnings homogamy couples. In France, earnings homogamy households are more common than female breadwinner households. Notably, households where partners contribute almost equally to income have the highest average incomes in France and the Netherlands, while in Bulgaria, male breadwinner households boast the highest average incomes. Female breadwinner households, on average, exhibit significantly lower incomes across all countries. Two high outliers, one from the Netherlands and one from France, were removed from the sample.

Bulgaria (in 000 BGN)

Household type	Observations	Mean	Median	Max	Min	Range	SD
Earnings homogamy	835	6.82	6.10	48.00	0.27	47.73	4.39
Male breadwinner	2,194	7.15	6.25	52.68	0.10	52.58	4.71
Female breadwinner	1,086	4.08	3.00	40.42	0.09	40.33	4.12
No income	328	0	0	0	0	0	0
Total	4,443	5.82	5.1	52.68	0	52.68	4.80

France (in 000 EUR)

Household type	Observations	Mean	Median	Max	Min	Range	SD
Earnings homogamy	3,345,344	42.76	39.20	406.8	0.02	406.78	23.47
Male breadwinner	9,610,854	40.95	36.00	288	0.90	287.10	26.35
Female breadwinner	2,204,621	40.57	36.60	216	0.02	215.98	26.20
No income	264,736	0	0	0	0	0	0
Total	15,400,000	40.59	36	406.8	0	406.8	26.07

the Netherlands (in 000 EUR)

Household type	Observations	Mean	Median	Max	Min	Range	SD
Earnings homogamy	184	44.71	43.20	120	0.02	119.98	16.99
Male breadwinner	1,203	39.64	37.20	272	0.01	271.99	19.24
Female breadwinner	190	25.83	20.65	125	0.65	124.35	18.85
No income	69	0	0	0	0	0	0
Total	1,646	36.88	36.25	272	0	272.00	20.70

Table 2: Descriptive statistics of household income (in thousands of national currency) by household type; only households with children; weighted data
(Source: author's calculation)

Figure 1 illustrates the income distribution by household type for each country. Male breadwinner households exhibit a less skewed, normal distribution. Conversely, female breadwinner households display a skewed distribution towards lower income levels, especially pronounced in Bulgaria and the Netherlands.
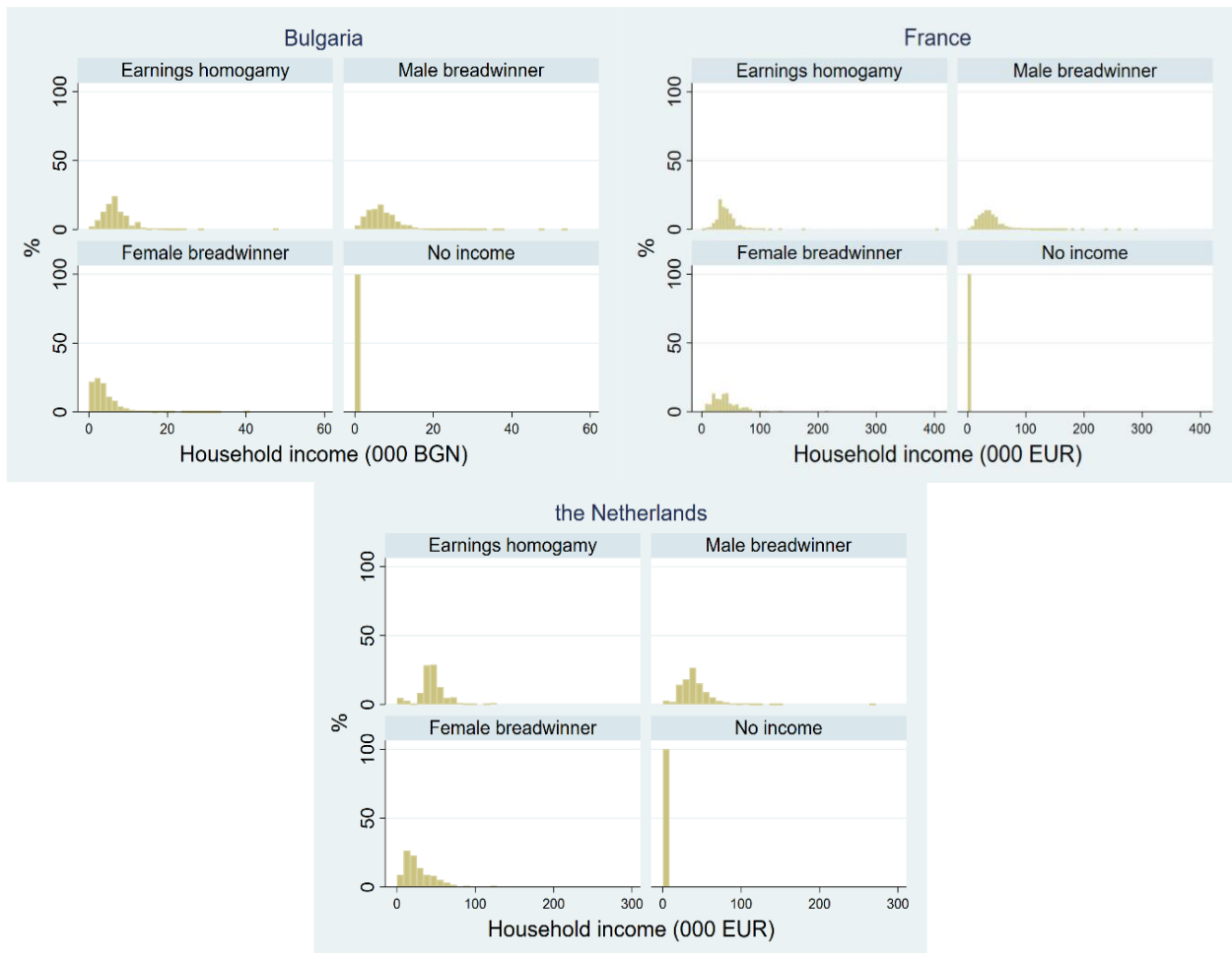
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Figure 1: Histogram of household income by household type
(Source: author's calculation)

Figure 2, in the form of box plot diagrams, emphasises the gender disparity in income, with female incomes consistently lower, exhibiting narrower ranges and lower maximums.
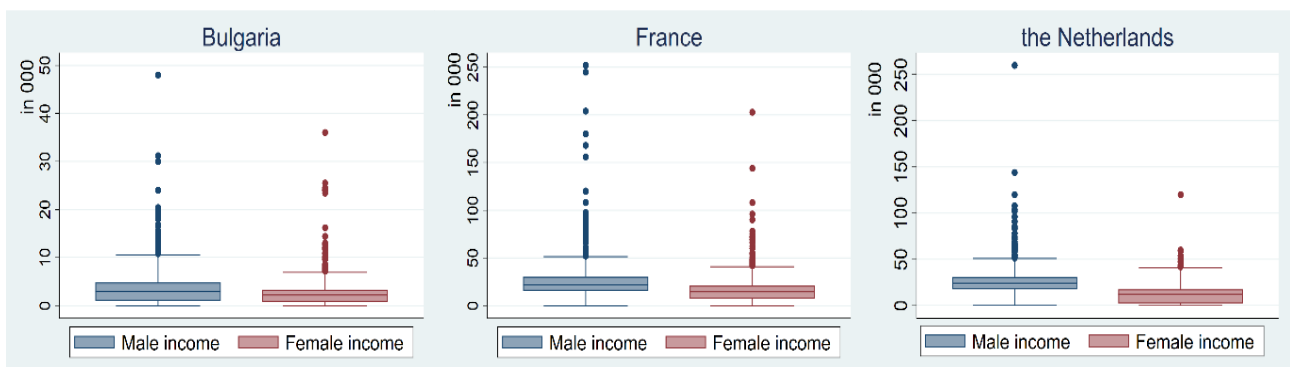

Figure 2: Box plot of income (in national currency) by gender
(Source: author's calculation)

Regression analysis (Table 3) confirms that female breadwinner households negatively influence household income. However, higher education levels for both partners positively correlate with household income, highlighting the importance of education in enhancing income for all partners.

	Bulgaria	France	the Netherlands
Observations	4,412	15,240,102	1,646
R^2	0.3437	0.2819	0.3225
Male breadwinner	0.38**	-0.2***	-3.26**
	(0.16)	(0.014)	(1.31)
Female breadwinner	-2.57***	-4.69***	-18.18***
	(0.18)	(0.019)	(1.9)
No income household	-7.22***	-39.22***	-41.05***
	(0.18)	(0.045)	(1.65)
Number of children	0.12*	-0.74***	-0.33
	(0.06)	(0.005)	(0.37)
Age of female partner	-0.02	0.34***	0.03
	(0.02)	(0.001)	(0.15)
Age of male partner	-0.02	0.12***	0.06
	(0.02)	(0.001)	(0.16)
Secondary education of female partner	1.16***	5.09***	-0.51
	(0.16)	(0.016)	(3.05)
Tertiary education of female partner	2.9***	18.73***	8.26**
	(0.25)	(0.018)	(3.25)
Secondary education of male partner	1.52***	5.92***	5.48**
	(0.16)	(0.016)	(2.3)
Tertiary education of male partner	3.02***	18.44***	13.33***
	(0.25)	(0.018)	(2.45)
Constant term	5.95***	6.49***	28.08***
	(0.29)	(0.036)	(4.7)

Table 3: Determinants of household income (in thousands), OLS regression
Note: *p<0.1, **p<0.05, ***p<0.01
(Source: author's calculation)

3.2. Child poverty

Examining child poverty is crucial to understanding the impact of different household types on children's well-being despite the strong limitations posed by the study's assumptions, data and definitions.

Table 4 presents these poverty indicators, highlighting Bulgaria with the highest child poverty headcount, followed by the Netherlands and France with the lowest child poverty rate. The significantly high child poverty rate in female breadwinner households is particularly concerning, underscoring the need for targeted policy interventions to address this disparity.

Poverty estimate (%)	Bulgaria	France	the Netherlands
Child poverty headcount	15.51	11.20	15.18
in earnings homogamy households	2.33	0.88	2.75
in male breadwinner households	3.88	4.18	4.03
in female breadwinner households	21.12	21.87	14.75

Table 4: Poverty estimates
(Source: author's calculation)

Respondents were asked about their household's ability to make ends meet as a subjective measure of poverty and economic deprivation. In France, 20.50% of respondents in households with children faced (great) difficulties in this regard, rising to 21.81% among female breadwinners.

In Bulgaria, over 50% of respondents struggled to make ends meet, exceeding 60% for female breadwinner households. Although subjective, these findings illuminate the economic disparities between the two countries, emphasising the particularly challenging situation faced by female breadwinners in Bulgaria.

3.3. Child caretaking tasks and gender norms

Table 5 provides a breakdown of how child caretaking responsibilities are divided between partners, highlighting any significant differences, particularly in female breadwinner households. While mothers predominantly undertake more responsibilities than fathers across all three countries, the division is not rigidly polarised. Notably, both partners often contribute equally to childcare tasks. Mothers typically handle tasks like staying at home with ill children and dressing them.

Country	Dressing the child	Putting the child to bed	Staying at home with children when they are ill
Bulgaria	Mother	Mother	Mother
France	Mother	Both*	Mother***
the Netherlands	Mother	-	Both***
Country	Playing and/or taking part in leisure activities with the child	Homework preparations with the child	Transport of the child
Bulgaria	Both	Mother	Both
France	Both	Mother	Both***
the Netherlands	-	-	Mother***

Table 5: Partner responsible for child caretaking tasks
Notes: Chi-square independence test for household types; "Both" includes other or children themselves, "-" denotes no data
$*p<0.1, **p<0.05, ***p<0.01$
(Source: author's calculation)

A logistic regression analysis was conducted to determine the probability of the mother being the primary child caretaker. The dependent variable was constructed by counting how many childcare tasks from Table 5 each or both parents equally performed. If the mother was responsible for most tasks, the dependent variable was coded as 1; otherwise, it was set to 0. The same variables from the OLS regression of household income determinants were used as independent variables, including household income. Figure 3 presents predictive margins adjusted for other variables in the model. Across all countries, male breadwinner households had the highest probability of mothers being the primary caretakers. This probability slightly decreased in female breadwinner households, reaching its lowest in earnings homogamy households. Moreover, the likelihood of mothers assuming primary caretaker roles declined with household income growth and increased with the number of children.
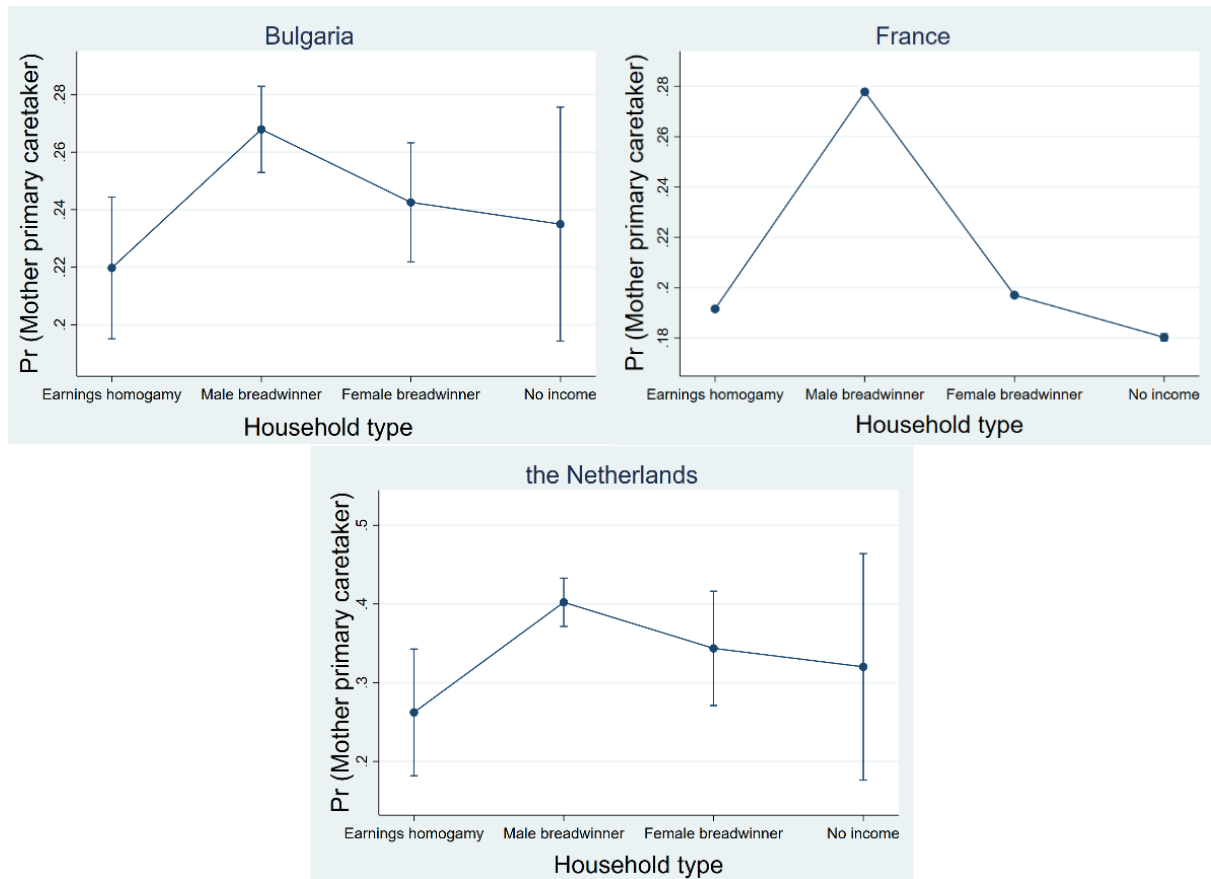
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Figure 3: Predictive margins of household type with 95% CIs
(Source: author's calculation)

This paragraph provides further insights into attitudes surrounding mothers' earnings and parental work. In Bulgaria and France, respondents generally disagreed with the idea that a woman earning more than her partner harms a relationship. Both countries believed that fulfilling family roles is as rewarding as paid work, though slightly more couples in Bulgaria with earnings homogamy disagreed. Interestingly, while most French respondents rejected the notion that preschool children suffer if their mothers work, a notable proportion of Bulgarians agreed. Bulgarians also tended to agree that children face challenges when fathers excessively focus on work. In France, the majority agreed, but within households where the mother is the primary or equal breadwinner, there was a leaning towards disagreement.

4. CONCLUSION AND FUTURE RESEARCH
This study delved into household breadwinner types based on gender in households with children across three diverse countries: Bulgaria, France, and the Netherlands, each representing distinct welfare regimes. The research, utilising data from the GGS survey, reaffirmed previous findings that women generally experience lower incomes, leading to a higher prevalence of child poverty in female breadwinner households. While childcaring responsibilities predominantly fall on mothers, there are instances where both partners share these duties. Notably, the highest likelihood of the mother being the primary caretaker occurs in male breadwinner households. Country-specific nuances were observed; Bulgaria, a former communist nation, exhibited a higher prevalence of female breadwinner households, particularly as mothers often work full-time, whereas in the Netherlands, such households were the least common. France displayed fewer disparities in average incomes across household types, possibly due to historical, political, and socio-economic factors influencing opinions on

mothers' earnings and children suffering due to working parents. However, limitations stem from survey data constraints, assumptions, definitions, and methodological choices. The research focused on the last wave of panel data, resulting in a biased and smaller sample. Inconsistencies in questions across countries and variations in weights and definitions further compounded these limitations. The definition of breadwinner-type households could be refined by considering factors such as working hours, types of income, and the ages of children and parents. Distinguishing between different types of female breadwinner households could minimise statistical noise (Drago et al., 2005). Future research could harness the benefits of analysing panel data from all survey waves, particularly with the improved data harmonisation in Round II of the GGS. A comprehensive analysis could provide insights into evolving gender norms and values over time, both within individual countries and through cross-country comparisons. Additionally, investigating policies related to work-life balance across nations would enrich the understanding of the challenges mothers face in diverse societal contexts. Policymakers should focus on implementing initiatives that enable women to balance work and family responsibilities. Crucial instruments include paternal leaves and father quotas, as women often encounter significant hurdles in the labour market while caring for children. Investments in early childhood education and care, and full-day school programmes can further alleviate the burden on mothers. Recognising the multifaceted factors shaping mothers' roles in society, policymakers should adapt policies to modern changes in the labour market and society. Flexibility, increased female employment, and support for non-traditional families should be encouraged, with a simultaneous emphasis on encouraging fathers to assume greater responsibility, thus reshaping societal gender norms.

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