Mother’s employment gain and child poverty exit in Europe

Inequalities, Interventions and the New Welfare State/Sociology
Master's thesis

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Abstract

Working parents and especially maternal employment are thought to provide the best protection against child poverty. However, not all employment helps to avoid poverty (Crettaz, 2013). This study analyses the relationship between maternal transitions into employment and children's likelihood of leaving poverty by utilizing pooled (2010-2017) longitudinal data from the EU-SILC, and a sample of 20,736 children from 30 European countries. The study uses linear regression analysis with individual fixed-effects to analyse the relationship between mother's employment gain and children's poverty exit, and how the type of employment, maternal characteristics, and the household- and the country-context may moderate the relationship.

Overall, mother's transition into employment increased the likelihood of children leaving poverty by 15 percentage points. Entry into part-time employment increased the chances of child poverty exit but not as strongly as entry into full-time work. Moreover, children of low-educated mothers, and children in large families (3 or more children) or in households that have very young children (0- to 2-years-old) had a harder time leaving poverty when the mother gained employment. Cross-country variation in the probability of child poverty exit when the mother gained employment was considerable. In a context of high availability of formal full-time childcare for younger children or low female part-time employment rate, the relationship between mother's employment gain and child poverty exit was more positive. The findings highlight the importance of mothers' work quality and access to adequate childcare services for fighting child poverty, while supporting the household income of vulnerable children.

Key words: maternal employment, child poverty, poverty dynamics, EU-SILC

1. Introduction

Working parents and especially maternal employment are thought to provide the best protection against child poverty. Despite increases in mothers' labour market participation rate over the past decade, child poverty remains an issue in Europe[1]. Every fourth child was at risk of poverty or social exclusion (AROPE) in Europe in 2021 with highest rates found in Romania (41,5%) and the lowest in Slovenia (11,0%) (Eurostat 2022). The detrimental effects of childhood poverty are widely reported ranging from worse developmental, cognitive and educational outcomes in childhood (e.g. Chaudry & Wimer, 2016) to poorer outcomes in terms of socioeconomic position, earnings and well-being when children grow up (e.g. Duncan et al., 2010; Nikulina et al., 2011; Evans & Kim, 2013).

While increasing maternal employment is recognized as a key factor for reducing child poverty, there is evidence that working does not always guarantee freedom from poverty. The risk of in-work poverty has been shown to be higher in 'precarious' or 'nonstandard' employment that is prevalent in female-dominated sectors and characterized as low-paid, part-time, temporary or otherwise insecure. (Crettaz, 2013; Lohmann & Crettaz, 2018; EIGE, 2021; Vaalavuo & Sirniö, 2022.) However, nonstandard work such as part-time work is perceived positively in some countries as it can allow especially mothers to better balance family and work life demands and help low-skilled workers reintegrate back to the labour market (Fagan et al., 2014; Lohmann, 2018). Still sometimes even full-time employment is not enough to avoid poverty (Marx & Nolan, 2013). The rise of in-work poverty in Europe is often explained by technological changes that led to the demand for high skilled labour while the need for well-paid industrial jobs declined which used to provide stable income for low-

[1]While the employment rate of working age women with children has risen from 62.2% to 69% between 2010-2022 in the EU-27 (Eurostat: LFST_HHEREDTY), children's at risk of poverty rate have only slightly reduced from 21.1% to 19.3% between 2010-2022 (Eurostat: ILC_PEPS01N) (Data accessed 2. July 2023).

skilled employees. The growing service sector with an increase in low-paying jobs have also contributed to the problem. Moreover, there has been significant social and demographic changes in the composition of families with more single and 'complex' family configurations, and more equal development in the way families share the responsibility for care and work. (Lohmann & Crettaz, 2018.) Overall, the changes highlight the need to consider again the role mother's employment has for lifting children out of poverty while underlining the importance to focus on the labour market situation of the "secondary" earners of families.

This study investigates the relationship between mother's employment gain and child poverty exit in Europe. First, the study examines how mothers' transition into employment relates to children leaving poverty. As substantial share of women with children resort to part-time work to balance care and work-life demands (Eurostat, 2023a), the study deepens previous knowledge about the role maternal employment has for the poverty risk of children by comparing mothers' entry into full-time and part-time employment. Moreover, the study shows how mother's employment gain can lift children with varying family backgrounds out of poverty and highlights the position of previously identified poverty risk groups. Finally, the study compares maternal employment gain's relation to child poverty exit across 30 European countries. Labour market structures, the economic situation, and the historical, cultural, and institutional setting influence job quality and conditions, and the overall risk of poverty (McKernan & Ratcliffe, 2005; Lohmann & Crettaz, 2018). The study analyses how the availability of early childhood education and care and the proliferation of female part-time work relate to children's chances of leaving poverty when their mother enters employment while highlighting the role of policy measures in moderating the risk of poverty for working mothers and their children.

2. Background

Mother's employment and individual-level determinants of child poverty exit

Employment is an important gateway for families to avoid poverty. Earnings from the labour market usually form the bulk of the income flow to households with children meaning that changes in labour income can have significant effect on children's poverty status (Bradbury et al., 2001; Lohmann, 2018). Evidence shows that positive employment events such as increase in working hours, increase in earnings, and moving from a workless household to having a household member in full employment have resulted to higher poverty exit rates for children (Barnes et al., 2015; Chzhen et al., 2016).

Especially mothers' employment status has been acknowledged as an important determinant of child poverty. In cross-country comparisons child poverty rates are lower in countries where maternal employment rates are high (OECD, 2017). Moreover, country-level studies have shown that when mothers gain employment, children are likelier to leave poverty. For example, Maître et al. (2021) reported that mothers' entry into full-time employment and growth in working hours increased the odds of children moving out of economic vulnerability in Ireland. Other studies have emphasized the importance of studying changes in the employment status of other earners rather than focusing only on the household head. For example, Jenkins (2000) found that while increase in the household head's labor market earnings accounted for almost half (45%) of all poverty spell endings, over third (34%) of poverty exits were due to increases in other household members' earnings for British married couples with children. Similarly, McKernan and Ratcliffe (2005) found that employment gains by the household head, their partner and other household members had almost equal effect for the likelihood of household leaving poverty. Lastly, already in 1989 Bane and Ellwood emphasized the role of "secondary earners" for ending family poverty as they

reported 23% poverty spells ending due to an increase in earnings of wives and other household members. The current analysis is also likely to show a *positive association between maternal employment gain and child poverty exit* (***hypothesis 1***).

However, the research on in-work poverty has shown that employment does not always guarantee a life free from poverty. Especially "non-standard" employment has emerged troublesome, which broadly defined can include all work other than standard full-time permanent employment. Evidence shows that part-time work, self-employment, or work based on a temporary contract are associated with a higher prevalence of in-work poverty and lower poverty exit rates compared to full-time permanent employment. (Peña-Casas et al., 2019; Vaalavuo & Sirniö, 2022.)

For women with caring responsibilities nonstandard employment such as part-time work is a common way to combine family and work-life in Europe (Fagan et al., 2014). Almost one third of female employees (aged 25- to 54-years-old) with children worked part-time in 2022 (Eurostat, 2023a). However, there is scarce but similar evidence that would suggest that children whose mothers work part-time have a higher risk to experience poverty. For example, in Ireland mother's transition into part-time work was not associated with family transitions out of economic vulnerability which according to Maître, Russell and Smyth (2021) would suggest that part-time work is not enough to lift families out of poverty. Additionally, latent class analysis revealed that in the US children were likelier experience poverty and household income instability if their mother engaged in work with "precarious" characteristics such as nonstandard schedules, low hourly wages, low weekly working hours or low-skilled work (Han & Zhang, 2022).

Reason why working sometimes leads to poverty stems from low wage rate and/or from low working hours (at the individual and/or household level) (Lohmann & Crettaz, 2018). The

weight in importance given to these components varies among studies. While some studies highlight that workers in low-wage, low-skill, low-productivity occupations and sectors are more exposed to poverty, others emphasize the role of work intensity, and argue that unemployment or underemployment at the household level is a more important determinant of in-work poverty (Halleröd et al., 2015; Crettaz, 2013).

Mothers' labour market earnings can be influenced by several factors. Part-time working mother's earnings are evidently affected by low working hours. However, low wage rate is also likely to play a role as part-time work tends to be more common in low-paid occupations and sectors. Evidence shows that women working part-time often have lower hourly pay compared to their full-time working counterparts. (Bardasi & Gornick, 2008; Horemans et al., 2016; EIGE, 2021.) Moreover, part-time work can be an inferior choice due to lack of job security and limited career and earnings development in terms of training and promotion (Fagan et al., 2014). Working part-time can thus influence also future earnings and increase the likelihood of unemployment spells, while limiting career opportunities, pensions and economic stability later on (Crettaz, 2013; Barnes et al., 2015; Salverda, 2018; EIGE, 2021). In some countries part-time workers' earnings suffer also from limited entitlements to social protection such as unemployment and sickness benefits (Horemans et al., 2016). For mothers in full-time employment the wage rate is a clearer determinant of earning levels, and if not high enough, full weekly working hours can still mean poverty for some. Especially if low wages are not compensated via taxes, social security contributions or by other earners, and in the latter case leaving the children of single mothers in a vulnerable position. (Marx and Nolan, 2013.) Moreover, mothers can overall face several disadvantages in the labour market ranging from the "motherhood penalty" i.e. reductions in earnings and career development due to child-birth and care (Kahn et al., 2014; Weeden et al., 2016), to discrimination in hiring and promotion (Faigan et al., 2014), and to overall gender gaps in pay and earnings

that also relate to occupational sex segregation (Peña-Casas & Ghailani, 2011; EIGE, 2021). However, it can still be expected that *children whose mothers work full-time have a higher chance of leaving poverty compared to children of part-time working mothers* (***hypothesis 2***) which are likelier to experience lower total earnings.

Some mothers may have a harder time finding employment that results in high enough earnings to lift children out of poverty such as mothers that are low-educated, low-skilled, or otherwise in marginalized positions. Evidence shows that lower maternal education is associated with a higher risk of poverty for both coupled and single-parent mothers and their children (Härkönen, 2018). However, there is also evidence that the incomes of highly educated mothers decrease more after childbirth compared to their lower educated counterparts (Wilde et al., 2010) meaning that differences between educational groups can sometimes be attenuated by motherhood. Despite this it can be expected that *higher maternal education relates to higher chances of children leaving poverty when mothers work* (***hypothesis 3.1***), as higher education can allow access to better pay, longer working hours and better-quality employment.

Additionally, the risk of in-work poverty tends to be higher for younger (and elderly) individuals compared the core working age population (Crettaz, 2013). Young mothers often have less experience and training resulting in higher likelihood of lower earnings, low-paid jobs and unemployment spells, while they are also less likely to receive social income such as disability or retirement pensions (Gornick & Jäntti 2012, Salverda, 2018; Kiss, 2020). Moreover, younger mothers often have younger children which can reduce their labour market attachment. For example, Kahn et al. (2014) found that children limit women's labour market participation most when women are younger, and the effect is eliminated when they

reach their 40s and 50s. It's likely that *children of younger mothers have also lower chances of poverty exit compared to children with comparatively older mothers* (***hypothesis 3.2***).

However, the relationship between mothers' labour market earnings and children's poverty is not always straightforward. The connection between women's low-wage work and in-work poverty has sometimes been reported as weak even though women are more often affected by low pay than men (Salverda, 2018; Ponthieux, 2018). Women with low pay or low working hours often live in households that are not poor, because their earnings are supplemented by their partners higher earnings lifting the total household income over the poverty threshold (Lohman, 2018; Salverda, 2018). Mother's low-paid part-time work might not then necessarily mean poverty for the children when income from other earners is considered. However, this idea relies heavily on the assumption that income is pooled equally in the household which has been questioned before (e.g. Jenkins, 1991). It's not evident that everyone's living standards rise as the total disposable income rises. Nevertheless, the household context influences greatly the level of income needed from mother's labour market activity to move the children from poverty.

Household-level determinants of child poverty exit

The household context plays an important role in how well mother's employment can lift children out of poverty. The living standard of families can be argued to result from available resources and the composition and size of the household over time. Household resources cover income from the labour market, transfers and from other sources, and its level depends on every household member's earning capacity and characteristics. Composition and size of the household also determine the level of demand for the resources, which can be influenced by e.g., age, sex, or the health status of household members. In this framework poverty is

sometimes described as a misbalance between resources and the 'needs' of the household. (Jenkins, 2000; Layte & Whelan, 2003; Lohmann 2018.)

The presence of other earners in the household is important for the poverty status of children. They can increase the income pool to a level that even mother's weak labour market attachment lifts children out of poverty. Here the children of single-parents are in an especially vulnerable position. Evidence shows that in-work poverty is higher for single-parents compared to two-parent families which is mostly explained by the number of earners (Nieuwenhuis & Maldonado, 2018). Moreover, to deal with care responsibilities and income demands, single-mothers are often forced accept work with reduced hours, temporary contract or worse quality compared to two-parent families (Nieuwenhuis, 2020). While single-parent families can be argued to have less demand for income as there are less adults consuming it, it can be expected that *working single mothers will have a harder time lifting their children out of poverty* (***hypothesis 3.3***) as they are often reliant only on one earner and are likelier to have a more disadvantageous position in the labour market.

Moreover, the level of demand for resources can greatly influence children's poverty risk. High demand for income may make it impossible for even full-time dual-earner families to avoid poverty. Evidence shows that large families with three or more children have a higher risk of overall poverty and in-work poverty (Crettaz, 2013; Czhzen et al., 2016; Bárcena-Martín et al., 2017). Moreover, research shows that high number of children is negatively associated with mother's labour market attachment resulting in wage penalties that persist over the life course (Kahn et al., 2014). More children can usually mean also more gaps in career and skill development making it harder to return and find well-paying job on the market. High number of children may then incur high costs while restricting mothers' labour market attachment meaning that *children in large families might be less likely to leave*

poverty when their mother gains employment (***hypothesis 3.4***). However, the level of resources and demand for them may be influenced by several other household characteristics. One important factor is the age of children, as younger children need more attention and care that often limit mother's attachment to the labour market. As children grow older, they might require more resources, however, this can be attenuated by mother's increased opportunity for labour market participation as care responsibilities have eased. Younger children may also have younger parents that have less labour market experience. Thus, it can be expected that *the younger children there are in the household, the less likely mother's employment will lift children out of poverty* (***hypothesis 3.5***).

Country context

Labour market structures, the economic situation, and the historical, cultural and institutional setting can relate to different levels of labour market attachment, wages and job quality (McKernan & Ratcliffe, 2005; Lohmann & Crettaz, 2018) which in turn can also relate to different poverty outcomes for children when their mother enters employment. Next, we look at what is the role of childcare and part-time employment for child poverty on the country level, and how their availability can moderate the relationship between mother's employment and child poverty exit.

Availability of childcare services

Early childhood education and care (ECEC) has been shown to reduce poverty by enhancing mother's employment (Misra et al., 2011; Van Lancker & Horemans, 2018). Childcare services help mothers enter and remain in the labour force, but they also strongly relate to higher wages and working hours for mothers. Especially childcare services targeted for

younger children (aged 0-to 2-years-old) relate to positive labour market outcomes for mothers as their goal is more to support mother's continuous employment after childbirth compared to childcare for older children that is focused at providing support and preparation for future education. (Misra et al., 2011; Boeckman et al., 2015.) Also, the use of childcare services relates to lower risk of in-work poverty at the individual level. Note that however, the families benefitting most had higher work intensity which might also indicate selection. (Van Lancker & Horemans, 2018.)

Enrollment rates and public expenditure for childcare services have varied between countries even though access and coverage have become more universalistic across EU and OECD countries (Thévenon, 2011; Rostgaard, 2018). Nordic countries have provided stronger support for mothers' continuous career path and working hours with high spending on childcare services for very young children and on leave entitlements. They have had high female employment rates and majority of women employed full-time or in part-time jobs with longer hours. (Thévenon, 2011; Korpi et al., 2013.) In Anglo-Saxon countries (also Switzerland) spending on childcare services is lower and targeted more to older children to support their educational and cognitive development. Part-time work is common for mothers while the father usually works full-time since families are more reliant on (sometimes costly) marketized care services. In Eastern and Southern Europe support for childcare services is less extensive and more fragmented, and especially in Southern Europe families rely more on informal care arrangements. One-earner families are common, and the lack of childcare support usually means that mothers don't work or are forced to accept part-time or temporary employment. (Thévenon, 2011; Horemans & Marx, 2013.) In Continental Europe patterns on childcare support are heterogenous, but in some countries such as in France childcare investment for younger children is higher and women work longer hours compared to the OECD average (Thévenon, 2011).

It can be expected that in countries where the availability of full-time care services for younger children is higher, mothers may be able to return to the labour market faster and access work with longer hours resulting in a limited gap in their career and earnings progression. *High availability of full-time care services for younger children might then relate to a higher likelihood of children leaving poverty when the mother enters employment* (***hypothesis 4***). Availability of childcare for younger children can also represent country-orientation in policy objectives and cultural values that find supporting women's labour market attachment important even while children are young (Misra et al., 2011). On the other hand, countries that rely more on family solidarity, informal care arrangements and traditional division of labour at home might experience smaller poverty reducing effect from mother's employment as mothers might be unable to participate fully to the labour market.

Prevalence of female part-time employment

The availability and promotion of part-time work within countries can influence mother's level of labour market attachment (and potentially their job quality) which can have implications also to children's economic well-being. In Europe, majority of part-time workers are female, but country differences in the prevalence of part-time work are significant. On average 27.8 % of European females (aged 20- to 64-years-old) worked part-time in 2022 with highest rates found in Switzerland and the Netherlands (slightly over 60%) and lowest in Bulgaria (less than 5%) (Eurostat, 2023a). Generally part-time work has been more prevalent in Western Europe in comparison to countries in Central and Eastern Europe where it has only had a marginal position in the labour market even for females (Vaalavuo, 2016). The proliferation of part-time work has related to the economic situation, as part-time employment rates tend to rise during recessions (Horemans & Marx, 2013; Miežienė et al., 2021). On the other hand, structural factors such the growing service sector and the laws

supporting its expansion have increased the demand for part-time positions (Schmid & Wagner, 2017; Miežienė et al., 2021). Historical and political factors have shaped the form and popularity of part-time work (Miežienė et al., 2021) and demographic changes in the labour supply (e.g. age and sex) have influenced its expansion. Especially in countries where women's labour market participation has increased over the years, part-time work has grown partly due to the need for 'personalized' working schedules. Lastly, some countries have encouraged the proliferation of part-time work with the aim to increase the labour market participation of women and other hard to employ groups such as mothers with young children. (Fagan et al., 2014.) Their tools have ranged from wage and working time regulation, taxation (based on individual vs. couple earnings) and to changes in social protection and benefit systems such as childcare provision (Miežienė et al., 2021).

High prevalence of part-time work can indicate that there are more jobs available that result to lower individual earnings (due to reduced working hours) which in turn can relate to a higher likelihood of lacking adequate income at the household level. In terms of wages, part-time work is a polarized phenomenon as it is present in both low and high end of the wage distribution. Evidence however shows that higher incidence of part-time work within countries relates to higher shares of part-timers at the bottom end, and that in many countries the growth of part-time employment has contributed to inequalities in pay. (Salverda & Mayhew, 2009; Salverda, 2018.) The wage differential between full-and part-time workers is often accounted to the fact that part-time employment is more prevalent in low-paid sectors and occupations (Matteazzi & Solaz, 2012).

Moreover, part-time work has been described to be located on the peripheral segments of the core labour market consisting usually of full-time permanent workers. In the outskirts part-time workers (mainly women) have been likelier to experience low income but also lack of

job prospects despite the stability or instability of their jobs. (Seo, 2021.) In terms of jobs prospects, there is evidence by Blau & Kahn (2013) from comparing the US and other OECD countries that higher female part-time employment rate is related to vertical (sex) segregation, meaning that women are less likely to obtain higher level job positions. Deschact (2017) also showed that in Belgium over 40% promotion gaps between men resulted from differences in working hours, namely in over time, late work and contract hours. Higher level jobs require often more attendance and when considering promotions employers might prefer those with more commitment in terms of working hours. Deschact also emphasizes that women tend to work more in sectors with flatter career hierarchies which contributes to the lack of career development.

In countries where the female part-time rate is high, mothers might be likelier to experience lower total earnings, worse job quality (in terms of hours and wages) or less work at higher levels which can in turn lower children's chances of leaving poverty (***hypothesis 5***). However, it must be noted that the institutional setting within countries plays an important part whether the poverty risk for children actualizes. In most countries, the level of social transfers (e.g. child benefits) can reduce the risk of poverty for children of both full-and part-time employees. It might be then that after the household context and redistribution have been accounted for, high rates of female part-time work indicates that it is a successful strategy to combine work and care responsibilities and to avoid poverty. (Lohman & Crettaz, 2018.) Moreover, in some countries part-timers can receive transfers from activation, care support or short time compensation programmes, but in others they may face a reduced entitlement to full benefit coverage (e.g. unemployment insurance) which can deepen their disadvantageous position (Horemans & Marx, 2013). Nevertheless, the country context and promoted the policy mix is an important component to consider for the poverty risk of children of working parents.

3. Data and methods

Data and sample

The study utilizes longitudinal data from the European Statistics on Income and Living Conditions (EU-SILC) survey that collects information on income, social inclusion and living conditions in Europe. Data is provided by Eurostat. Each sample household and/or person is contacted annually for four waves or longer depending on the national sampling design.

In the study the units of analysis are children aged 0- to 17-years-old. Each child was linked to their mother using the variable "RB230" provided by Eurostat which identifies the natural or adoptive mother of each child in the household. Only children of working age (18- to 64-years-old) mothers were included in the analysis.

The analytical sample was constructed using the EU-SILC survey waves from 2010-2017 that were pooled together. Children could enter the sample if they were poor and after that they were followed until they left poverty or until their household was no longer interviewed. In some cases, the drop from the sample occurred when children left the household or when they aged into adulthood (18-years-old and over). Only those children were chosen to the sample whose household was present in the data for four survey waves and who individually was present for at least two consecutive waves to ensure that change could be potentially observed within all children included in the sample. Lastly, analysis was conducted only on children who had no missing information in the dependent or independent variables. On average children were observed for 2.9 waves, and minimum of 2 and maximum of 4 waves.

The final sample comprised of 20,736 individual children and in total of 60,033 child-years. Children from the following 30 European countries were included in the analysis: Austria (AT), Belgium (BE), Bulgaria (BG), Switzerland (CH), Cyprus (CY), Czechia (CZ),

Denmark (DK), Estonia (EE), Greece (EL), Spain (ES), Finland (FI), France (FR), Croatia (HR), Hungary (HU), Ireland (IE), Iceland (IS), Italy (IT), Lithuania (LT), Luxembourg (LU), Latvia (LV), Malta (MT), the Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Sweden (SE), Slovenia (SI), Slovakia (SK) and United Kingdom (UK).

Table 1. Information about the children in the study population

	Child-years	Low-educated mother (%)	Young mother (%)	Single-mother (%)	Family has 3 children or more (%)	Family has very young children (%)
Austria	1,601	35	11	27	39	22
Belgium	1,827	44	13	25	48	24
Bulgaria	1,585	66	24	12	32	12
Croatia	1,960	44	8	7	45	16
Cyprys	1,275	36	12	12	33	23
Czechia	1,475	39	8	27	30	14
Denmark	203	18	6	28	39	13
Estonia	2,515	32	16	17	29	21
Finland	1,855	30	14	15	55	35
France	3,259	43	8	27	48	27
Greece	4,573	41	8	6	20	13
Hungary	3,783	52	18	14	45	28
Iceland	359	39	16	25	43	22
Ireland	623	43	7	24	35	21
Italy	4,981	56	8	12	23	14
Latvia	1,992	38	14	20	31	18
Lithuania	1,479	28	22	23	34	19
Luxembourg	1,027	72	14	17	48	22
Malta	440	83	2	17	42	1
Netherland	1,139	48	7	20	52	16
Norway	530	40	12	46	36	16
Poland	6,544	24	12	6	34	20
Portugal	921	69	8	10	29	12
Romania	3,115	64	13	4	33	7
Slovakia	1,206	35	9	4	41	15
Slovenia	1,705	31	10	12	26	19
Spain	4,943	58	7	10	23	14
Sweden	514	34	7	36	41	37
Switzerland	1,260	36	10	16	41	17
United Kingdom	1,344	46	22	26	32	24

Note: Units in the frequencies presented are children. Children whose mothers are low educated have a primary or lower degree and are considered ‘young’ if they are aged 18- to 29-years-old. Last two columns represent household characteristics of the children, namely how many live in large families (3 or more children) or have very young (0-to 2-years-old) children in their household.

Dependent variable

In the study the focus is on children's transitions out of poverty. In the European context poverty is often understood as not having the minimally acceptable living standard relative to others in the same societal and temporal context, and is often operationalized as lacking resources, namely monetary income (Lohmann, 2018). Previous research has also shown that poverty is not a static position and individuals may move in and out of poverty several times during their life-course (Layte & Whelan, 2003).

This study uses the relative notion of poverty and defines those children as poor whose disposable household income falls under the 60% of national equivalized median income threshold. Income is measured as the annual total household disposable income after taxes and transfers at the end of the previous calendar year[2]. To account for differences in household size and composition total disposable household income is equivalized using the 'modified' OECD equivalence scale. The income poverty indicator allows cross-country comparison of different European country contexts and relating to the previous literature of child poverty dynamics.

For children to leave poverty they must live in a household that experiences an increase in the total disposable household income that lifts them over the national 60% equivalized median income threshold. In practice the dependent variable *poverty exit* is identified in the data the following way: the *poverty exit* -variable receives the value 1 when the child has been poor in the previous year (t-1) and in the current year they are no longer poor (t-0). If children have not exited poverty, the variable receives the value 0 until they do leave poverty or until they are no longer followed.

[2] Except for Ireland and United Kingdom for which the income reference period was the current year.

Independent variables: Individual- and household-level

The main independent variable is *mother's employment* that has two categories: 'employed' refers to the mother being in employment or self-employment at least one month and 'not employed' refers to zero months in any employment during the previous year. Variables about mother's annual employment status were built from monthly information about self-declared labour market activity in the previous calendar year (variables PL211A-PL211L). By utilizing the fixed-effects estimator that considers only within variation, the variable refers in practice to the event of entering employment i.e. moving from 'not employed' (0) to 'employed' (1) in consecutive years.

Mother's employment status was also inspected by type. The variable *mother's employment type* consists of three categories: 'not employed' (0 months in employment), 'full-time employee' and 'part-time employee'. If the mother had both full-and part-time employment activity during the previous year, the status that appeared most often during the year was chosen. If the mother had equal time in full-time or part-time employment, full-time status was chosen for her. The employment type-variable includes both the employed and the self-employed and divides the types only according to working hours. Note that entry into specific employment type may occur from either unemployment or from other employment types.

Individual characteristics may influence mother's employment quality, her earnings and potentially the poverty status of her children. To account for the mother's characteristics, variables about *mother's education* and *age* were included in the analysis. Mother's education was divided into three categories: 'primary or lower secondary', '(upper) secondary', and 'tertiary' level education. Mother's age was added as continuous variable in the models except in the interaction where it was divided into 4 groups: 18- to 29-year-olds, 30- to 49-year-olds, 50- to 59-year-olds and 60- to 64-year-olds.

The poverty status of children is defined by the available resources and the composition and size of the household which may additionally influence the employment situation of the mother (Jenkins, 2000). To account for the composition and size i.e. 'the needs' of the household, continuous variables about *the number of adults aged 18- to 64-years-old*, *number of adults aged +65-years-old* and *number of children aged 0- to 17-years-old*, and *the age of the youngest child in the household* were added to the models. In the interaction models the number of children and the age of the youngest child were also treated as categorical. The former was divided into 2 categories: '1-2 children' and '3 or more children' as larger families tend to have a higher risk of poverty. The latter was divided into three categories: '0- to 2-year-olds', '3- to 5-year-olds' and '6- to 17-year-olds'. Country context impacts how early children enter formal ECEC, but on average the school starting age is 6 years in Europe (Eurydice, 2022) meaning that younger children (under 6-years-old) may limit mother's attachment to the labour market. Moreover, a categorical variable about *mother's partnership status* ('single' or 'not single') was added to account for single-parents in the data that generally have a higher risk of poverty. Overall, the number of individuals and their characteristics influence both the level of inflow and outflow of resources in the household. To control for the level of resources already present in the household and potential changes in them, variables about the *earnings of other household members*[3] and the *total benefits*[4] received by the household were added to the models and divided by 1000 to ease interpretation. Gross income was chosen over net, as net income had missing data in many countries. Lastly, to account for contextual changes (e.g. the economy or in the institutional setting), income reference year was added to the models as a control variable.

[3] The variable *earnings of other household members* included gross cash employee income and cash benefits or losses from self-employment.
[4] The variable *total benefits* included all individual household members' total gross pension (private), unemployment benefits, old-age benefits, survivor's benefits, sickness benefits, disability and education allowances, and total gross household-level family/child-related allowances, social exclusion not elsewhere classified, housing allowances and regular inter-household cash transfers received.

All individual- and household-level variables were measured at the previous calendar year to match the same time period as the poverty exit-variable.

Independent variables: Macro- level

As the relationship between maternal employment and child poverty exit may vary depending on the country context, two macro-level variables were chosen under inspection: *the availability of childcare services* and *the prevalence of female part-time employment*. Both macro-variables were provided by Eurostat and were included in the models with a one-year lag. Appendix tables A1-A3 include detailed information on the variables.

Availability of childcare services was measured as the enrollment rates to formal full-time (30 hours and over) early childhood care and education (ECEC) which includes both private and public arrangements. Enrollment rates were measured separately for children aged 0- to 2-years-old and for children aged 3-years-old to compulsory school age. The former accounts for differences in country orientation to support either mother's continuous employment or children's educational development with formal childcare. The latter considers the overall level of childcare availability also in countries where children enter ECEC later.

Prevalence of female part-time employment was measured as the female part-time employment rate as a percentage of the total female working population (aged 20- to 64-year-old). While the indicator measures only female part-time rate, it can be argued to represent the proliferation of part-time work in general, as women populate the majority of part-time jobs in Europe and as the growth of the part-time work has coincided with the growth of female labour supply over the years (Lohman, 2018; Fagan et al., 2014).

Analytical strategy

The study uses linear regression analysis with individual fixed-effects to examine the relationship between mother's employment gain and child poverty exit. Linear regression modelling was chosen because it allows groups to be compared with more reliability. With logistic regression comparison of effects across samples, across groups within samples or over time may according to Mood (2010) reflect unobserved heterogeneity. Moreover, linear regression modelling has been used before to study poverty transitions with a dichotomous dependent variable (e.g. Vaalavuo & Sirniö, 2022).

Fixed-effects estimator was used in the analysis because of its ability to control for all stable unobserved person-specific heterogeneity by excluding all time-constant information for each unit. Not including all necessary variables in the model can be an issue for other methods (such as random effects) since the unobserved variable can be positively correlated both with time-constant and time-varying explanatory variables (Andreß et al. 2013). For example, mother's disability may influence her level of labour market attachment, but due to missing data such variables could not be added to the models. Moreover, other hard to measure factors such as skills, preferences or even intelligence may be argued to contribute to the selection of mothers into part-time versus full-time employment. In order to deal with the potential omitted variable bias, the fixed-effect estimator uses only variation around the child-specific means i.e. only the variation within children (Andreß et al. 2013). Moreover, as the fixed-effect estimator rules out all but within variation, it allows to study maternal moves into employment. While the fixed-effects estimator can be used to detect causal relations, the current analysis is associative in nature because employee income variables are measured only annually in EU-SILC. It's thus not possible untangle with the accuracy that causal deduction requires what has exactly caused income changes during the year.

However, random effects estimator was also considered for the analysis and the basic model with the outcome and individual-and household-level independent variables was tested using linear regression analysis with random effects. Results were similar to those produced with the fixed-effects estimator and can be found in the appendix table A4. Moreover, the Hausman test indicated that the fixed-effect estimator differed significantly from the random effects estimator meaning that the fixed-effect estimator provides more consistent estimates.

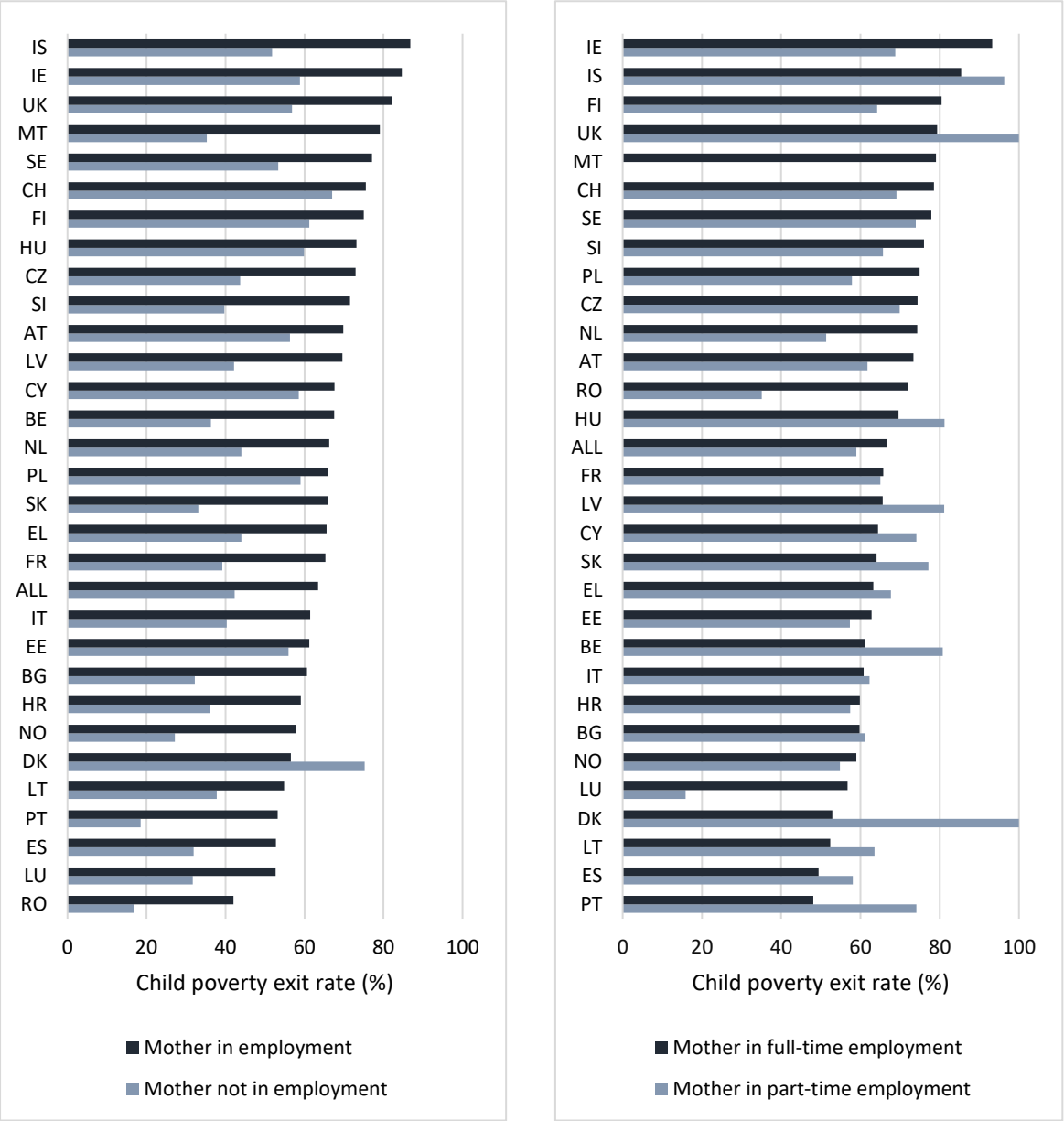
The study analyses separately the relationship between child poverty exit and (1) maternal transition into any employment and (2) maternal transitions into part-time and full-time employment. As the risk of poverty may differ according to individual- and household-level characteristics, the study separately models interactions to find if (3.1) mother's education, (3.2) mother's age group, (3.3) mother's partnership status, (3.4) number of children in the household or (3.5) the age of the youngest child moderates the relationship between mother's employment gain and child poverty exit. The fixed-effects estimator omits any time-variant variables, meaning that any unchanging characteristics of interest must be added as interactions in the model. Lastly, the country context may influence the likelihood of poverty exit of children of working mothers. The study presents results from separate interaction models to find if (4) the availability of ECEC for children aged 0- to 2-years-old and for children aged 3-years-old to compulsory school starting age moderates the relationship of mother's employment gain and child poverty exit. For this analysis the sample was restricted to children in households that had their youngest child aged 0- to 5-years-old. Older children might not benefit from ECEC services as the the average school starting age in Europe is 6 years (Eurydice, 2022). The restricted sample comprised of 8,700 children and 24,127 child-years. Finally, the interaction between mother's employment gain and (5) the prevalence of female part-time rate was analysed with the full sample. All models were weighted using longitudinal weights provided by Eurostat.

4. Results

Figure 1. presents descriptive findings on the share of children who left poverty and whose mother was at the time either employed or unemployed by country. On average about 60% of children whose mothers were employed and about 40% children whose mothers were unemployed left poverty. For children of employed mothers, highest poverty exit rates were found in Iceland, Ireland and UK where over 80% of children left poverty. Lowest poverty exit rates were found in Romania, Luxembourg, Spain and Portugal where still over 40% of children of working mothers left poverty. In almost all countries children with employed mothers left poverty more often than children of unemployed mothers. In Denmark poverty exit rates of children of unemployed mothers were higher than those with working mothers suggesting that other earners and/or income support might have a larger role for child poverty exit there.

Exit rates are also shown separately by maternal employment type for those children whose mothers were in employment at the end of the observation period. On average about 66% and 65% of children with mothers working full-time and part-time exited poverty respectively. Children with full-time working mothers had highest poverty exit rates in Ireland and Iceland (over 80%) and lowest in in Portugal, Spain and Lithuania (under 50%). Children with part-time working mothers instead had considerably high exit rates in the United Kingdom and Denmark where part-time work is also common for females overall. Lowest exit rates were found for children of part-time working mothers in Luxembourg and Romania. In 14 countries children of part-time working mothers exited poverty as often or more than their counterparts with full-time working mothers.

Figure 1. Child poverty exit rates (%) and maternal employment status and type by country



Note: Countries sorted from highest to lowest share in child poverty exit rates according employed (left) and full-time employed (right). Weighted frequencies.

Table 2. presents results from linear probability models with individual fixed-effects with all countries combined. Model 1 shows the relationship between mother's transition into any employment and child poverty exit, and model 2 the presents the relation mother's transition into part-time and full-time employment has on the likelihood of children leaving poverty.

The results in model 1 show that mother's employment gain increased the probability of children exiting poverty by 15 percentage points compared to those children whose mother stayed unemployed (*hypothesis 1*). However, the type of work the mother enters matters for children's poverty (*hypothesis 2).* In model 2 the results show that children whose mother entered full-time work and whose mother entered part-time work had 16 percentage points and 12 percentage points higher likelihood of leaving poverty respectively compared to children whose mother stayed unemployed. The difference between children whose mothers entered full-time and part-time working show that the negative side of part-time work (lower working hours and potentially lower wages) for household income are to some extent cushioned by the household context. However, mother's entry into full-time work still shows a stronger positive relation with child poverty exit compared to entry into part-time work.

Secondary findings from model 1 show that higher educational gains by mothers had a positive relationship with child poverty exit. Children whose mother gained tertiary education had 12 percentage points higher likelihood to leave poverty compared to other educational groups. Mother's upper secondary education gain instead increased children's likelihood of poverty exit by 6 percentage points. The age of the mother did not show a statistically significant relationship. Moreover, changes in the household size and composition generally had a negative association with child poverty exit. Children whose mothers became single parents had 13 percentage points lower likelihood of poverty exit. Children in households that experienced an increase in the number of seniors and adults had 17 percentage points and 10 percentage point lower chances of leaving poverty respectively. It's notable that the association can represent both new individuals moving into the household but also current individuals aging into new age groups. However, changes in the number of children or in the age of the youngest child in the household did not produce statistically significant results which might be due to short observation period. Lastly, increases in other household

member's earnings and total household benefits had a positive association with the probability of child poverty exit as did the income reference year.

Table 2. Mother's employment gain's relation overall and by employment type to child poverty exit

Model 1	*B*	*95% CI*
Mother's employment *(ref. not employed*)		
Employed	0.15***	[0.12,0.18]
Mother's education *(ref. Primary/lower secondary)*		
Upper secondary education	0.06**	[0.03,0.10]
Tertiary education	0.12***	[0.06,0.17]
Mother's age	0.00	[-0.00,0.01]
Mother's partnership status *(ref. not single)*		
Single mother	-0.13***	[-0.18,-0.09]
Earnings of other(s)	0.01**	[0.01,0.02]
Total benefits	0.02***	[0.01,0.03]
Number of adults aged 18-64 years old	-0.10***	[-0.13,-0.08]
Number of adults aged +65 years old	-0.17***	[-0.22,-0.11]
Number of children aged 0-17 years old	-0.02	[-0.05,0.01]
Age of the youngest child	0.00	[-0.00,0.01]
Income reference year	0.13***	[0.11,0.15]
Constant	-261.88***	[-304.68,-219.09]
Model 2	***B***	***95% CI***
Mother's employment type *(ref. not employed*)		
Full-time employee	0.16***	[0.13,0.20]
Part-time employee	0.12***	[0.09,0.16]
Constant	-261.15***	[-303.60,-218.70]
N	20736	
N person-years	60033	

95% confidence intervals in brackets
* p<0.05, ** p<0.01, *** p<0.001

Notes: Estimates in model 2 are adjusted for the same control variables as in the model 1. Full table for model 2 in table A5. in the appendix.

Figure 2. shows results from linear probability models with individual fixed-effects and with interactions between mother's employment gain and (2.1) her educational level, (2.2) her age,

(2.3) her partnership status, and (2.4) the number of children and (2.5) the age of the youngest child in the household. Interactions were analyzed in separate models. From the tested interactions, the interactions between mother's employment gain and maternal education, and the age of the youngest child and the number of children in the household were statistically significant at 95 % confidence level.

Figure 2.1 shows that mother's education level moderates the relationship between maternal employment and children's likelihood of leaving poverty (*hypothesis 3.1*). Association between mother's transition into employment and child poverty exit is stronger (in a positive direction) for children whose mothers have tertiary or upper secondary education compared to children whose mothers' have primary/lower secondary level education. The difference between children whose mother has tertiary or upper secondary education is statistically non-significant as the confidence intervals overlap considerably. Also, the Wald test indicated that there is not a significant difference between the groups.

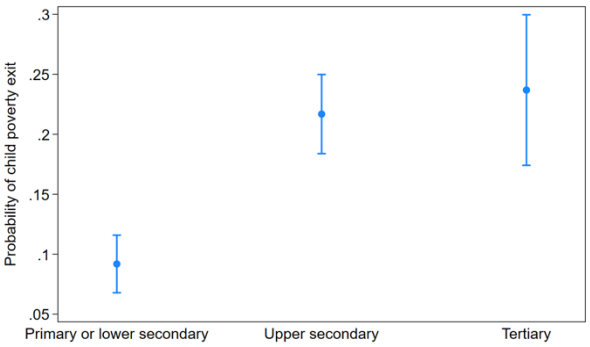
Moreover, the association between maternal employment and children's poverty status depends on the age of the youngest child in the household. Figure 2.5 shows that having older children aged 3- to 5-years-old or 6- to 17-years-old in the household enables mothers to gain employment that has a higher positive relation on the likelihood of poverty exit compared to having younger children in the household (*hypothesis 3.5*). The difference between the age groups of 3- to 5-years-old and 6- to 17-years-old is not statistically significant as confirmed by the overlapping confidence intervals.

Lastly, figure 2.4 shows that children in households that have 1-2 children compared to 3 or more have a higher likelihood of leaving poverty when the mother gains employment (*hypothesis 3.4*). While the confidence intervals of the child size groups overlap to some extent indicating less reliability in the result, the joint test that assumes that all coefficient

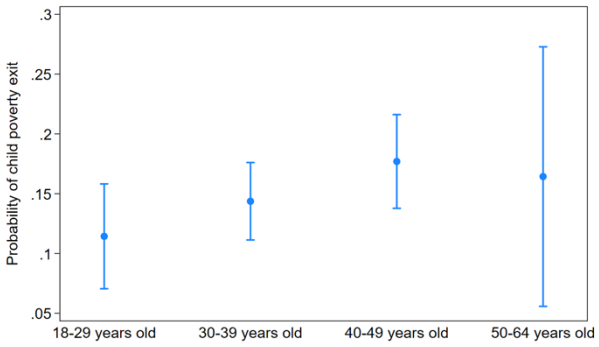
associated with the interaction are equal to zero (the Wald test) shows that we can reject the null hypothesis ($p<0.05$).

Figure 2. Interactions between mother's employment gain and her educational level, her age, her partnership status, and the number of children and the age of the youngest child in the household

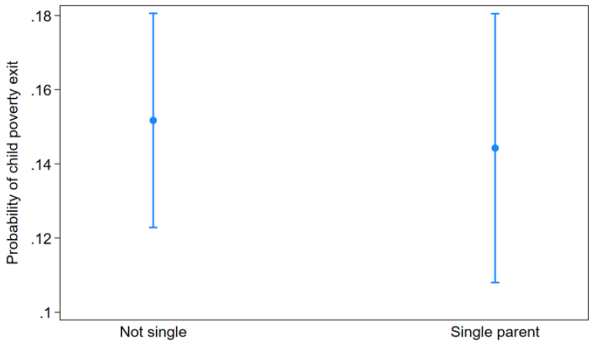
2.1. Mother's educational level***



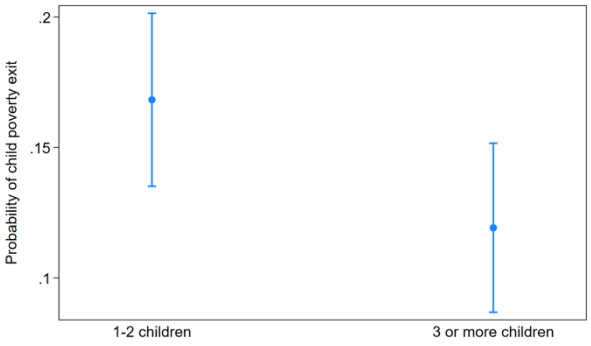
2.2. Mother's age group



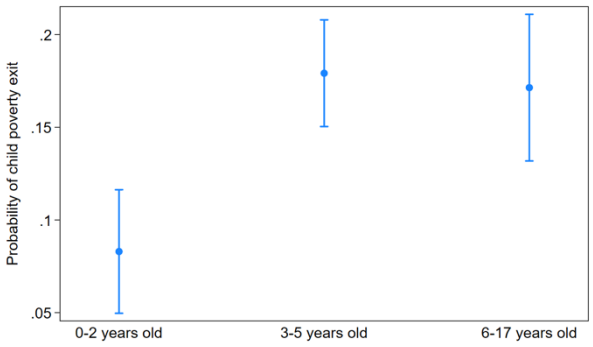
2.3. Mother's partnership status



2.4. Number of children*



2.5. Age of the youngest child***

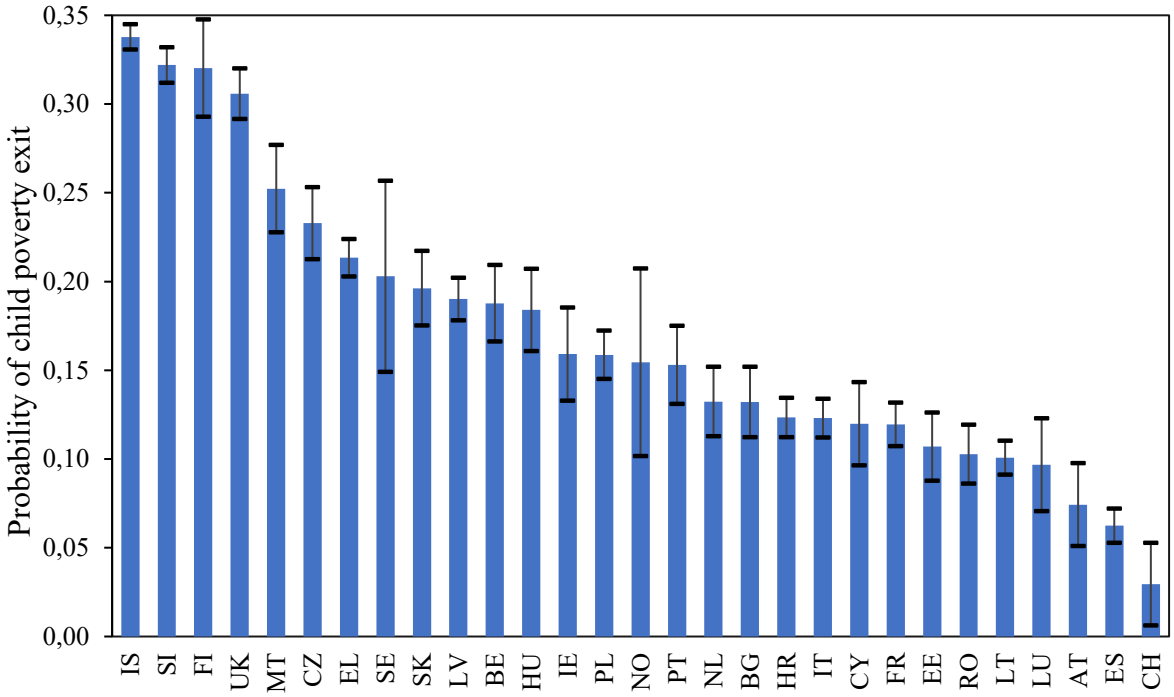


* $p<0.05$, ** $p<0.01$, *** $p<0.001$ (Wald test)

Notes: Results from linear probability models with individual fixed-effects are presented as average marginal effects with 95% CIs. Estimated are adjusted for the same control variables as in the model 1.

Figure 3. presents the association between maternal employment gain and child poverty exit with an interaction between the country and mother's entry into employment in the same model. Across 30 European countries there were considerable variation in the relation of maternal employment gain on child poverty. Having their mother enter employment increased the likelihood of children leaving poverty most in Iceland, Slovakia, Finland and United Kingdom by 30 percentage points or more. On the other end, mother's employment had the lowest relation to child poverty exit in Romania, Luxembourg, Austria, Spain and Switzerland where maternal employment gain increased child poverty exit with 15 percentage point or less.

Figure 3. Association between mother's employment gain and child poverty exit in Europe ***



*p<0.05, ** p<0.01, *** p<0.001 (Wald test)

Notes: Results from linear probability models with individual fixed-effects are presented as average marginal effects with 95% CIs. Estimated are adjusted for the same control variables as in the model 1. Results for Denmark are excluded from the figure due to large confidence intervals.

Figure 4. shows interactions between mother's employment gain and the following macro-level variables: (4.1.1.) enrollment rates in formal full-time ECEC for children aged 0- to 2-years-old, (4.1.2.) enrollment rates in formal full-time ECEC for children aged 3-years-old to compulsory school age, and (4.2.) the female part-time employment rate as percentage of the total female labour force population. Macro-level variables were analysed in separated models and for the models including enrollment in ECEC-variables, the sample was restricted to those children in households that had their youngest child aged 0- to 5-years-old. From the tested interactions, interactions between maternal employment gain and enrollment rates in formal full-time ECEC for children aged 0- to 2-years-old and the female part-time employment rate showed statistically significant results at 95% confidence level.

Figure 4.1.1. shows that full-time childcare availability to younger children is related to higher likelihood of children leaving poverty when the mother enters employment (*hypothesis 4*). When the enrollment rate into childcare for young children is lower, children of mothers that entered employment have a lower likelihood of leaving poverty. As the rate grows, so does the likelihood of child poverty exit. While at the highest end the confidence intervals widen showing less reliability in the results, high enrollment rates in ECEC for younger children seems to relate to better chances of leaving poverty when the mother enters employment.

Lastly, the figure 4.2. shows that the level of female part-time employment within countries relates to children's chances of leaving poverty when their mother enters employment (*hypothesis 5*). When the female part-time employment rate is high, children of mothers that entered employment have lower chances of leaving poverty. As the rate decreases, children's likelihood of leaving poverty grows. On the other end, low female employment rate relates to higher likelihood of children leaving poverty while their mother enters employment.

Figure 4. Interactions between mother's employment gain and enrollment rates in full-time ECEC for children aged 0- to 2-year-old and 3-years-old to compulsory school age, and the female part-time employment rate

Figure 4.1.1. Early education and care for children aged 0- to 2-years-old *

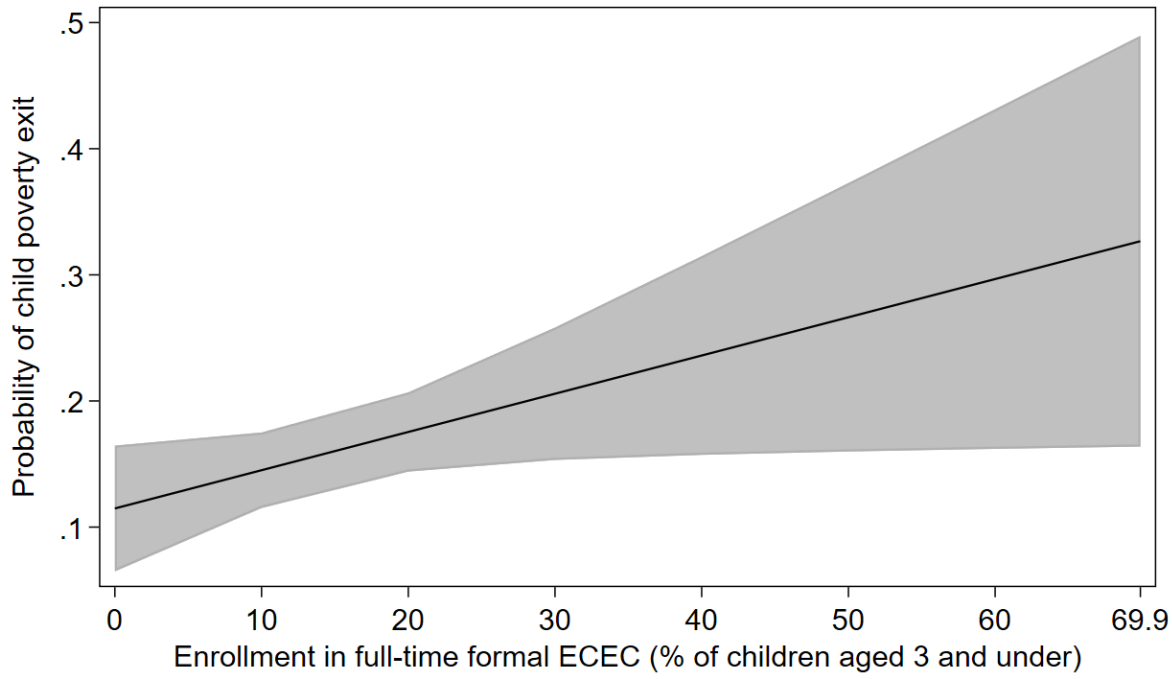


Figure 4.1.2. Early education and care for children from 3-years-old to compulsory school age

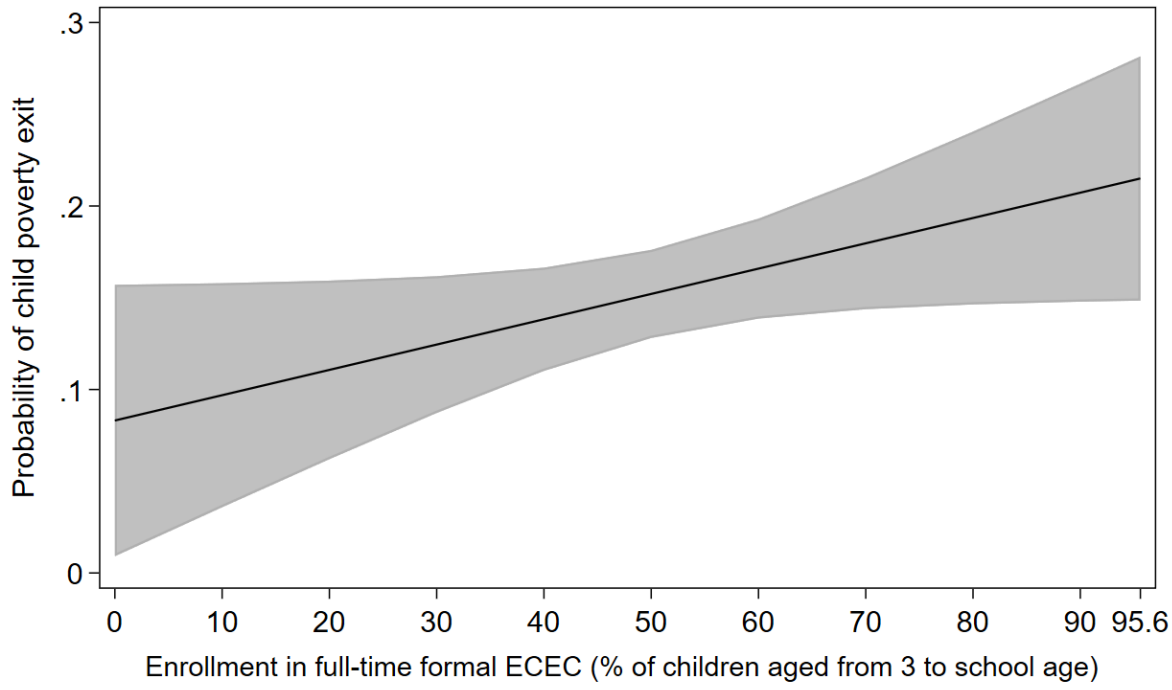
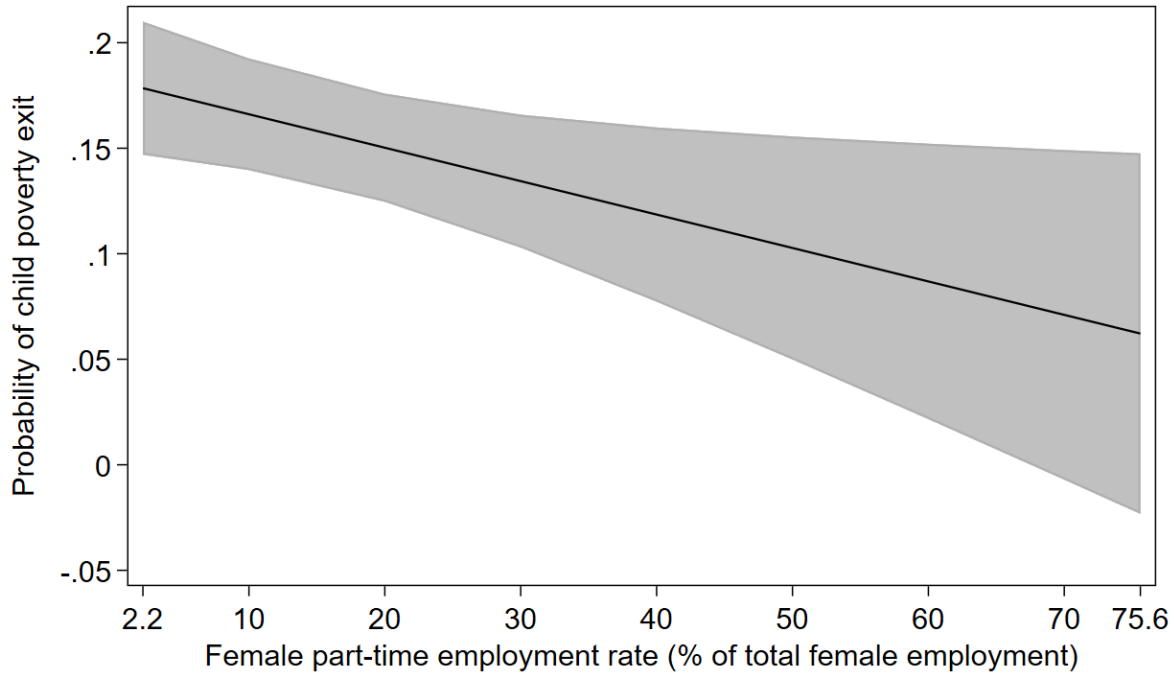


Figure 4.2. Female part-time employment rate*



* p<0.05, ** p<0.01, *** p<0.001 (Wald test)

Notes: Results from linear probability models with individual fixed-effects are presented as average marginal effects with 95% CIs. Estimated are adjusted for the same control variables as in the model 1. For analyses in figures 4.1.1. and 4.1.2. the sample is restricted to children who have a child aged 0-5-years-old in the household (N=8,700 and child-years=24,127).

5. Conclusion and discussion

This study set out to examine the relationship between maternal employment gain and child poverty exit in Europe. Working parents and especially maternal employment are generally thought to provide the best protection against child poverty. As expected, the results in this study confirmed hypothesis 1 that children whose mothers entered employment had a higher likelihood of leaving poverty than those children whose mothers remained unemployed. Supporting mothers' entry into employment continues to be an important key factor in protecting children from the detrimental effects of childhood poverty.

However, previous research has showed that nonstandard employment such as part-time work which is common in low-paid sectors and occupations has a higher risk of in-work poverty. (Vaalavuo & Sirniö, 2022). For mothers' part-time work is a common way to balance the demands of work and family life in Europe. The results showed (in line with hypothesis 2) that children whose mothers gained full-time employment had somewhat higher likelihood of poverty exit compared to children whose mother's entered part-time work. While mother's entry into part-time work enables children to leave poverty, it is to some extent still an inferior choice due to lower total earnings and potentially limited career prospects in the future. The household context doesn't completely buffer children' economic well-being from the negative aspects related of part-time work but it's possible that country differences might arise due e.g. different levels of income support targeted to part-timers.

Previous research has pointed that several individual- and household-level characteristics influence mothers' labour market position and can increase the risk of child poverty. The results showed that the relationship between mother's employment gain and child poverty exit depends on the mother's education level (in line with hypothesis 3.1). Lower educated mothers can have a more difficult time in obtaining well-paid quality employment that can also support their children financially. Moreover, results confirmed that children in large families (3 or more children) or in households with very young children (aged 0-2-years-old) have a lower likelihood of leaving poverty when the mother enters employment (as predicted by hypotheses 3.4 and 3.5). High number of children increases the demand for labour market earnings and the overall risk of poverty. Moreover, large families and having very young children in the household can restrict mothers' labour market attachment and force her to accept worse quality jobs if care services are lacking or if flexible better paid positions are not available. Higher needs can translate to child poverty especially in a context where mother's income loss isn't compensated by transfers. For example, in Southern Europe

mothers are sometimes forced to accept part-time work involuntarily as childcare services are lacking while limited spending on child-related benefits increases the risk of poverty for them (Horemans & Marx, 2013).

When comparing 30 European countries there was considerable variation in children's probability of leaving poverty when the mother transitioned into employment. Children had highest chances of exiting poverty in Iceland, Slovakia, Finland, and United Kingdom, and lowest in Romania, Luxembourg, Austria, Spain, and Switzerland. In order to gain insights on the drivers of the variation, two macro-level indicators were introduced: availability of childcare and the prevalence of female part-time work.

The use of early childhood education and care (ECEC) services has been previously found to be related to positive employment outcomes for mothers. Countries differ greatly in their policy measures how, to whom and to what extent ECEC services are promoted. Behind different configurations lie differing value judgements about when and if mothers should return to work, and what is the appropriate age and duration for children to access formal childcare compared to having their developmental needs met in the family context. (Misra et al., 2011; Thévenon, 2011.) The results showed that children had a higher likelihood of leaving poverty when their mother entered employment in countries with higher availability of full-time childcare services for very young children (as predicted by hypothesis 4). In contrast children in countries that had lower availability of full-time childcare for young children fared comparatively worse. Supporting mothers' early return to the labour market and their career development can be argued to also benefit children's economic well-being. Moreover, full-time childcare availability can help mothers to access work with longer hours while allowing them flexibility to choose between work opportunities. In terms of policy objectives, a more 'de-familialistic" orientation that aims to reduce gender inequality and

pressures mothers face in combining care and work responsibilities (Lister, 1994) can be argued to relate to positive outcomes for children in terms of poverty reduction. In comparison, when care is more gendered and reliant on informal arrangements mothers' chances to support their family in the labour market is limited.

Lastly, it can be argued that in countries with high levels of female part-time work, mothers are likelier to experience lower total earnings, worse job quality (in terms of hours and wages) or less work at higher levels which can in turn lower children's chances of leaving poverty. The results showed that in countries where female part-time rate was high children whose mothers entered employment had a lower likelihood of leaving poverty compared to children in countries where the female part-time rate was low (in line with hypothesis 5). In contrast children whose mothers gained employment fared comparatively better in countries where the female part-time rate was low. While variation in the mechanisms impacting the quality and conditions of work is likely to be vast across Europe, it can be argued that high availability of work with reduced hours, inequalities in wages between part- and full-timers, or the lack of opportunities for career development for female workers are also reflected in worse outcomes in terms of poverty reduction for children when their mother enters employment.

The findings in this study have confirmed that mothers' employment matters for child poverty. However, to reduce the incidence of child poverty it is not enough to raise maternal employment rates but it's necessary to also consider the quality of mother's work and the policy structures surrounding it. Important factor influencing the quality of part-time work has been if it is considered as a marginalized secondary form of employment (e.g. in United Kingdom) or as integrated alongside full-time work with difference only in terms of working hours (e.g. the Netherlands) (Fagan et al., 2014). Enforcing equal treatment of part-timers in

terms of wages, rights and training opportunities is likely to also benefit the economic well-being of families. Moreover, alongside are needed infrastructure and services for the care of children and the elderly to enhance equality in care and work between men and women (Fagan et al., 2014). Without them mothers are likely to limit their attachment to the labour market or not work at all which can deepen the disadvantageous position of poor children. Lastly, the role of welfare state generosity e.g. in terms of transfers and services can be substantial for the poverty status of large families, families with young children, or families with low-educated mothers that can have hard time full-filling the 'needs' of the household even when the mother is in employment.

However, more information is needed on specific policy measures on the national level that may benefit mothers' work and children's poverty. Mothers' employment and the related child poverty risk may depend for example on different forms of childcare provision (e.g. financing, cost, eligibility or even opening hours), the regulative framework surrounding part-time work and female-dominated sectors, or the level of income support for working families. Moreover, more research is needed to about the earning dynamics, job quality and conditions of those families that are most at risk of poverty and how the policy context may hinder or help their economic stability.

Lastly, the current study also faces some limitations. The analysis focused only on short-term poverty exits and didn't consider how persistent or reoccurring the experience of poverty was due to data restrictions (namely short follow-up period). Nor it was possible to make causal inferences about employment transitions due to income being measured only annually. Missing data also meant that other important variables were not added to the models such as health, ethnic background or living in a rural area. Moreover, to define poverty the study used the 60% national median income threshold that can be criticized for being arbitrary, sensitive

to changes in national income distribution and not considering the multidimensionality of poverty. In terms of employment-variables, self-employment wasn't studied separately even though it's likely that different mechanism impact its poverty risk compared to standard employment. Lastly, in the analysis with the macro-level variables, cross-country variation can be due to other several unobserved country-level factors. The results give general level insights of a complex phenomenon that is likely to complicate further when the lens is moved closer to the national context.

References

Andreß, H-J., Golsch, K., & Schmidt-Catran, A. (2013). *Applied Panel Data Analysis for Economic and Social Surveys*. Springer Berlin.

Bane, M. & Ellwood, D. (1986). Slipping Into and Out Of Poverty: The Dynamics of Spells. *Journal of Human Resources*, 21, 1–23.

Bárcena-Martín, E., Blanco-Arana, C., & Pérez-Moreno, S. (2017*). Dynamics of child poverty in the European countries* (Working paper No. 2017-437). Society for the Study of Economic Inequality.

Bardasi, E. & Gornick, J. C. (2008). Working for less? Women's part-time wage penalties across countries. *Feminist Economics*, *14*(1), 37–72.

Barnes, M., Lord, C., & Chanfreau, J. (2015). *Child poverty transitions: exploring the routes into and out of poverty 2009 to 2012*. UK: Department for Work and Pensions.

Blau, F. D. & Kahn, L. M. (2013). "Female Labor Supply: Why Is the United States Falling Behind?" *American Economic Review*, *103*(3), 251–56**.**

Bradbury, B., Jenkins, S., & Micklewright, J. (2001). Conceptual and measurement issues. In Bradbury, B., Jenkins, S., & Micklewright, J. (Eds.), *The Dynamics of Child Poverty in Industrialised Countries* (pp. 27–61). Cambridge University Press.

Boeckmann, I., Misra, J., & Budig, M. J. (2015). Cultural and Institutional Factors Shaping Mothers' Employment and Working Hours in Postindustrial Countries. *Social Forces*, *93*(4), 1301–1333.

Chaudry, A. & Wimer, C. (2016). Poverty is not just an indicator: the relationship between income, poverty, and child well-being. *Academic pediatrics*, *16*(3), 23–29.

Chzhen, Y., Toczydlowska, E., & Handa, S. (2016). *Child Poverty Dynamics and Income Mobility in Europe* (Innocenti Working Papers No. 2016-16). UNICEF Innocenti Research Centre.

Crettaz, E. (2013). A state-of-the-art review of working poverty in advanced economies: Theoretical models, measurement issues and risk groups. *Journal of European Social Policy*, *23*, 347–362.

Deschacht, N. (2017). Part-Time Work and Women's Careers: a Decomposition of the Gender Promotion Gap. *Journal of Labor Research*, *38*(2), 169–186.

Duncan, G. J., Ziol-Guest, K. M., & Kalil, A. (2010). Early-childhood poverty and adult attainment, behavior, and health. *Child development*, *81*(1), 306–325.

Evans, G. W. & Kim, P. (2013). Childhood poverty, chronic stress, self-regulation, and coping. *Child development perspectives*, *7*(1), 43–48.

EIGE. (2021). *Gender inequalities in care and consequences for the labour market*. European Institute for Gender Equality.

Eurostat. (2022). *Children at risk of poverty or social exclusion* (Data from September 2022). Eurostat Statistics Explained.

Eurostat. (2023a). *Part-time and full-time employment – statistics* (Data from May 2023). Eurostat Statistics Explained.

Eurostat. (2023b). *Part-time employment as percentage of the total employment, by sex and age (%)* [Data set]. European Commission, Eurostat. https://data.europa.eu/data/datasets/tfgjuubhkgofk3li8i14la?locale=en

Eurostat. (2023c). *Children in formal childcare or education by age group and duration - % over the population of each age group - EU-SILC survey* [Data set]. European Commission, Eurostat. http://data.europa.eu/88u/dataset/iwwcluwsx4grncbf8rzzkg

Eurydice. (2022). *Compulsory education in Europe 2022/2023*. European Education and Culture Executive Agency.

Fagan, C., Norman, H., Smith, M., & González Menéndez, M.C. (2014). *In search of good quality part-time employment* (Conditions of Work and Employment Series No. 43). International Labour Organization.

Gornick, J. C. & Jäntti, M. (2012). Child poverty in cross-national perspective: Lessons from the Luxembourg Income Study. *Children and Youth Services Review*, *34*(3), 558–568,

Halleröd, B., Ekbrand, H., & Bengtsson, M. (2015). In-work poverty and labour market trajectories: Poverty risks among the working population in 22 European countries. *Journal of European Social Policy*, *25*(5).

Han, W. J. & Zhang, L. (2022). Precarious Parental Employment Conditions and Family Poverty Experiences in the First Six Years of a Child's Life. *Journal of Child and Family Studies*, *31*(4).

Horemans, J. (2016). Polarisation of Non-standard Employment in Europe: Exploring a Missing Piece of the Inequality Puzzle. *Social Indicators Research*, *125*(1), 171–189.

Horemans, J. (2018). Atypical employment and in-work poverty. In Lohmann, H. & Marx, I. (Eds.), *Handbook on In-Work Poverty* (pp. 146–170). Edward Elgar Publishing.

Horemans, J. & Marx I. (2013). *In-work poverty in times of crisis: Do part-times fare worse?* (ImPRovE Discussion Paper No. 13/14). Antwerp.

Horemans, J., Marx, I., & Nolan, B. (2016). Hanging in, but only just: part-time employment and in-work poverty throughout the crisis. *IZA Journal of European Labor Studies, 5(5).*

Härkönen, J. (2018). Single-mother poverty: How much do educational differences in single motherhood matter? In Nieuwenhuis, R. & Maldonado, L. (Eds.) *The triple bind of single-parent families: Resources, employment and policies to improve wellbeing* (pp.31–50). Bristol University Press, Policy Press.

Jenkins, S.P. (1991). Poverty Measurement and the Within-Household Distribution: Agenda for Action. *Journal of Social Policy, 20*, 457–483.

Jenkins, S. P. (2000). Modelling Household Income Dynamics. *Journal of Population Economics*, *13*(4), 529–567.

Kahn, J. R., García-Manglano, J., & Bianchi, S. M. (2014). The Motherhood Penalty at Midlife: Long-Term Effects of Children on Women's Careers. *Journal of marriage and the family*, *76*(1), 56–72.

Kiss, M. (2020). *Recent trends in female employment*. European Commission.

Korpi, W., Ferrarini, T., & Englund, S. (2013). Women's Opportunities under Different Family Policy Constellations: Gender, Class, and Inequality Tradeoffs in Western Countries Re-examined. *Social Politics: International Studies in Gender, State & Society*, *20*(1), 1–40.

Layte, R. & Whelan, C. (2003). Moving in and out of poverty. *European Societies*, *5*(2), 167–191.

Lister, R. (1994). She has other duties: Women, citizenship and social security. *Social security and social change: New challenges to the Beveridge model,* 31–44.

Lohmann, H. (2018). The concept and measurement of in-work poverty. In Lohmann, H. & Marx, I. (Eds.), *Handbook on In-Work Poverty* (pp. 7–25). Edward Elgar Publishing.

Lohmann, H. & Crettaz, E. (2018). Explaining cross-country differences in in-work poverty. In Lohmann, H. & Marx, I. (Eds.), *Handbook on In-Work Poverty* (pp. 50–69). Edward Elgar Publishing.

Maître, B., Russell, H., & Smyth, E. (2021). *The dynamics of child poverty in Ireland: Evidence from the Growing Up in Ireland survey* (ESRI Research Series 121). The Economic and Social Research Institute.

Marx, I. & Nolan, B. (2013). In-work poverty. In B. Cantillon & F. Vandenbroucke (Eds.), *Reconciling work and poverty reduction: how successful are European welfare states?* (pp. 131-156). Oxford University Press.

McKernan, S.-M. & Ratcliffe, C. (2005). Events that Trigger Poverty Entries and Exits. *Social Science Quarterly*, 86, 1146-1169.

Matteazzi, E., Pailhé, A., & Solaz, A. (2012). *Part-time wage penalties in Europe: A matter of selection or segregation* (Working papers No. 250). ECINEQ Society for the Study of Economic Inequality.

Miežienė, R., Krutulienė, S., & Gruževskis, B. (2021). Identifying the main determinants of part-time employment in EU Countries. *Review of Economic Perspectives*, *21*(2), 151–171.

Misra, J., Budig, M., & Boeckmann, I. (2011). Work-family policies and the effects of children on women's employment hours and wages. *Community, Work & Family, 14*(2), 139–157.

Mood, C. (2010). Logistic Regression: Why We Cannot Do What We Think We Can Do, and What We Can Do About It. *European Sociological Review*, *26*, 67–82.

Nieuwenhuis, R. & Maldonado, L. C. (2018). Single-Parent Families and in-Work Poverty. In Lohmann, H. & Marx, I. (Eds.), *Handbook on In-Work Poverty* (pp. 171–192). Edward Elgar Publishing.

Nieuwenhuis, R. (2020). *The situation of single parents in the EU*. European Commission.

Nikulina, V., Widom, C. S., & Czaja, S. (2011). The role of childhood neglect and childhood poverty in predicting mental health, academic achievement and crime in adulthood. *American journal of community psychology*, *48*, 309–321.

OECD. (2017). "Graph 1.2 - Child poverty rates are lower in countries with higher maternal employment: Percentage of children (0-17) that live in poor households, and employment rates (%) for mothers (15-to 64 years old) with at least one child aged 0-14, 2012". In *Building an Inclusive Mexico: Policies and Good Governance for Gender Equality*. OECD Publishing.

Peña-Casas, R. & Ghailani, D. (2011). Towards Individualizing Gender In-Work Poverty Risks. In Fraser, N., Gutiérrez, R., & Peña-Casas, R. (Eds.), *Working Poverty in Europe. Work and Welfare in Europe* (pp. 202–231*)*. Palgrave Macmillan.

Peña-Casas, R., Ghailani, D., Spasova, S., & Vanhercke, B. (2019). *In-work poverty in Europe. A study of national policies*. European Social Policy Network (ESPN).

Ponthieux, S. (2018). Gender and in-work poverty. In Lohmann, H. & Marx, I. (Eds.), *Handbook on In-Work Poverty* (pp. 70–88). Edward Elgar Publishing.

Rostgaard, T. (2018). Childcare as a global policy agenda. In Eydal, G. B. & Rostgaard, T. (Eds.), *Handbook of Family Policy* (pp. 96–110). Edward Elgar Publishing.

Salverda, W. (2018). Low earnings and their drivers in relation to in-work poverty. In Lohmann, H. & Marx, I. (Eds.), *Handbook on In-Work Poverty* (pp. 26–49). Edward Elgar Publishing.

Salverda, W. & Mayhew, K. (2009). Capitalist economies and wage inequality. *Oxford Review of Economic Policy, 25*(1), 126–154.

Seo, H. (2021). 'Dual'labour market? Patterns of segmentation in European labour markets and the varieties of precariousness. *Transfer: European Review of Labour and Research*, *27*(4), 485-503.

Schmid, G. & Wagner, J. (2017). *Managing social risks of non-standard employment in Europe* (Conditions of Work and Employment Series No. 91). International Labour Organization.

Thévenon, O. (2011). Family Policies in OECD Countries: A Comparative Analysis. *Population and Development Review*, *37*(1), 57–87.

Vaalavuo, M. (2016). *Part-time work: A divided Europe*. European Commission.

Vaalavuo, M. & Sirniö, O. (2022). Jobs against poverty: a fixed-effects analysis on the link between gaining employment and exiting poverty in Europe. *European Societies*, *24*(4), 1–32.

Van Lancker, W. & Horemans, J. (2018). 15 Childcare policies and in-work poverty. In Lohmann, H. & Marx, I. (Eds.), *Handbook on In-Work Poverty* (pp. 261–276). Edward Elgar Publishing.

Weeden, K. A., Cha, Y., & Bucca, M. (2016). Long Work Hours, Part-Time Work, and Trends in the Gender Gap in Pay, the Motherhood Wage Penalty, and the Fatherhood Wage Premium. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, *2*(4), 71–102.

Wilde, E. T., Batchelder, L., & Ellwood, D. T. (2010). *The mommy track divides: The impact of childbearing on wages of women of differing skill levels* (Working paper No. 16582). National Bureau of Economic Research.

Appendix

Table A1. Female part-time employment rate as a percentage of the total female working population (20- to 64-year-olds)

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	43,8	44,2	44,6	45,6	46	47,2	47,8	47,9	47,9	47,6
Belgium	41,2	41,9	43	43,3	42,3	41	41,3	41,9	40,9	40,5
Bulgaria	2,4	2,4	2,4	2,5	3	2,7	2,4	2,2	2,3	2
Croatia	8,5	9,3	9	6,9	6,3	6,7	7,3	7	6	6,6
Cyprus	11,2	11,5	11,8	12,8	15,4	16,5	15,6	15,5	15,5	14,2
Czechia	8,4	9	8,4	8,5	10	9,4	9,2	9,8	10,8	10,8
Denmark	33,1	33,9	32,8	31,6	31,5	30,9	30,4	32,5	31,6	30,9
Estonia	12,3	13,1	13,5	13,1	12,2	10,9	12,9	12,7	13	14,6
Finland	16,7	17,4	17,5	17,6	17,6	17,5	17	18,4	18,6	18,8
France	29,7	29,9	29,9	29,9	30,3	30,4	29,9	29,5	29,3	28,7
Greece	10	10,1	10	11,7	12,5	12,9	13	13,6	14	13,2
Hungary	7	7,6	8,7	9,4	9	8,3	7,7	6,8	6,2	6,2
Iceland	32,8	31,8	28,9	27,9	28,1	32,5	32,4	33,9	33	30,5
Ireland	31,9	33	33,7	33,5	33,6	32,4	31,8	30,9	29,1	28,5
Italy	27,7	28,8	29,1	30,8	31,6	32,1	32,4	32,7	32,5	32,4
Latvia	9,2	10,8	10,2	10,9	9,3	8,8	9,9	10,6	10,4	9,6
Lithuania	9	8,9	9,8	10,6	10,1	10,6	9,7	8,7	9,2	8,7
Luxembourg	34,8	35,8	35,8	35,9	35,8	35,4	33,5	34,8	35,3	31,6
Malta	22,7	23,3	24,5	24,6	25,2	27,3	25,7	25	23,6	21,5
Netherlands	73,6	74,8	75,1	75,5	75,6	75,2	75,3	74,8	74,1	73,8
Norway	40,2	40,1	39,8	38,8	38,5	36,4	35,9	35,7	34,5	35,7
Poland	10,6	10,6	10,3	10,3	10,2	10,2	9,8	9,5	9,8	9,5
Portugal	13	12,3	13,5	14	13,7	12,4	12,3	11,9	11,4	10,2
Romania	8,9	9,8	10	9,6	9,3	9,2	8,8	7,4	6,6	6,6
Slovakia	4,5	5,1	5,6	5,4	6	6,7	8	7,8	8	6,9
Slovenia	11	12,4	11,4	11,8	12	13	12,9	12,7	13,7	13,6
Spain	22	22,4	22,6	23,7	25	25,3	24,9	23,9	23,9	23,6
Sweden	39	38,9	38	37,2	36,3	35,9	34,9	34,2	32,9	31,6
Switzerland	61,5	62,6	61,7	62,4	62,4	63	62,7	62,8	62,7	63
United Kingdom	40,1	40,9	40,8	41	40,3	40,1	39,7	39,6	39,2	38,6

Table A2. Enrollment rates to formal full-time early childhood care and education (ECEC) (0- to 2-year-olds) as percentage over the population of the age group

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	2,4	2,5	2,5	6,8	7,7	6,7	8,6	5,6	4,3	7,1
Belgium	16,4	18,7	19,7	26,6	24,7	25,6	26,8	28,4	30,4	34,1
Bulgaria	7,1	6,3	6,7	7,6	10,5	10,1	8,4	12,5	8,2	15,3
Croatia					9,6	16,6	9,5	13,5	14,5	15,9
Cyprus	11,5	13,6	14,6	15,2	18,2	18,1	10,4	16,2	16	20,2
Czechia	0,4	0,2	1,4	0,9	1,2	1,8	1,7	1,7	2,6	3,8
Denmark	62,5	67,7	68,8	62,6	62,9	63,6	69,6	62,2	66	54,5
Estonia	21,3	18,5	14,7	14,2	17,7	13,9	17,8	20,8	20,8	22,5
Finland	18,5	18,8	18	20,9	19,3	20,8	23,3	21,3	20,7	23,7
France	24,8	25,9	26,3	23,4	25,7	25,8	25,7	31,9	30,7	30,4
Greece	6,7	4,8	14,8	15	6,2	7,3	6,5	6	8,8	9,4
Hungary	5	7,8	6,5	6,4	9,2	8,6	10,8	12,2	11,8	13,7
Iceland	37,8	37	35,4	38,7	40,4	41,8	41,7	60,8	48,4	58,2
Ireland	4,6	8	6,8	8,3	8,2	9,7	8,9	7,8	7,3	11,7
Italy	16,1	15,3	15,2	11,1	13,6	13,6	16,9	22,3	16,5	16,1
Latvia	11,6	14,1	13,3	17,4	19,2	18,4	19,3	24,4	24,9	23,1
Lithuania	10	12,3	7,6	5	10	16,7	7,7	12,5	18,6	19,3
Luxembourg	11,7	18,8	27,5	27,4	24	29,8	34,9	33	37	42,7
Malta	4	3,2	4,3	1,3	3,8	6,1	7,7	13,1	14,8	13,2
Netherlands	5,6	6,1	6,2	7	6,2	6,1	5,3	5,4	5,5	6,3
Norway	33,7	37,3	34,5	33,5	36,7	44,1	45,7	47	41	50,4
Poland			3,3	4,9	4	5,2	4,2	5,6	9,8	8,8
Portugal	30,2	27	29,1	28,8	34,1	38,1	39,2	42	40,8	45,6
Romania	1,5	3,5	1,3	3,2	0,7	0,6	5,2	8,8	1,8	5,9
Slovakia	1,5	2,8	2,4	3,3	2,4	5,3	0,8	0,5	0,5	0
Slovenia	27,4	32,5	34,1	35,7	35,8	34	34,9	35,7	40,9	44,1
Spain	17,8	17,6	19,6	15,1	16,5	16,3	20,6	18,7	17,8	20,3
Sweden	38,3	32,4	30,9	34,2	32,7	31,7	36,1	33,6	37,1	34,3
Switzerland		4,6	4,1	3,9	4,7	5,8	0	0	6	5,9
United Kingdom	4	3,5	4,8	3,3	4,2	3,8	4,3	4,4	5,2	7

Table A3. Enrollment rates to formal full-time early childhood care and education (ECEC) (3-year-olds to minimum compulsory school age) as percentage over the population of the age group

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	23,9	27,6	29,5	26,1	27,3	25,1	28,2	27,8	23,7	29,6
Belgium	69,6	63	69	75,1	78,9	80,3	78,9	75,6	78,8	80,7
Bulgaria	47,7	46,3	57,8	83,7	70,6	66,7	68,7	64,9	59	67,4
Croatia					35,8	36,8	44,4	45,1	47,7	48,1
Cyprus	43,9	46,3	39	44,3	46,2	43,7	34	37,4	37,9	45,3
Czechia	41,5	43	48	50	57,2	57,2	57,3	57,7	55,8	53,6
Denmark	68,5	72,4	84,5	85,4	91,5	88,2	91,1	86,3	80,4	82,7
Estonia	80,4	80,7	77,1	79,2	78,8	79,9	80,5	77,6	81,8	79,4
Finland	54,2	53,9	54,8	55,1	57,1	57,4	58,1	57,7	59,3	62,4
France	48,2	47,6	52	51,4	49,1	56,7	58,9	59,1	57,3	61,4
Greece	27,1	23,2	32,4	38,5	29,6	36,2	30,4	47,1	36,7	33,6
Hungary	62,2	68,9	66	69,2	71,7	77,5	81,8	79	71,9	75
Iceland	90,5	89,1	90,4	91,6	93,8	94,1	78,9	94,6	95,3	95,1
Ireland	14,8	16,4	18	16,5	20,6	21,3	19,4	24,5	28,2	24,6
Italy	75,4	75,4	74,8	71,8	70,4	71,4	65,8	74,9	71,1	72,4
Latvia	67,8	64,9	69,7	76,2	76,7	79,2	84,5	84,7	87,2	86,1
Lithuania	44,1	54,5	57,1	59,9	62,1	67,9	64,2	66,2	74,3	74,4
Luxembourg	26,2	40,8	36,7	37,7	41,4	44,9	51,2	62,2	62,3	63,4
Malta	52,2	53,4	57,9	69,8	67	70,2	60,8	64,3	63,5	61,7
Netherlands	15,2	18,1	16,1	17,2	17,4	17,4	15,6	21,6	23,7	19,1
Norway	66,6	66,8	75,1	69,6	73,5	77,5	80,4	77,4	75,4	78,2
Poland			36,9	31,7	33,3	40,5	38,5	50	51,5	51,8
Portugal	76,3	71	77,3	83	83,8	86,2	86,5	88,7	89,2	90,7
Romania	18,7	15,8	10,5	13,9	12,1	11,4	6,2	8,9	10,3	11,6
Slovakia	55,9	58,8	54,5	52,8	58,8	56,9	52,1	58,6	60,1	52,9
Slovenia	73,7	76,8	80,9	80,6	80,8	81,8	81,2	80,2	84,8	85,6
Spain	45,3	49,6	42,1	41,8	40,6	42,9	46,9	45,8	38,8	44
Sweden	70,4	70,9	68,9	73,8	75,8	76	74	75,2	75,9	70,1
Switzerland		13,4	13,6	14,7	12,5	12,9	0	0	12,6	13
United Kingdom	38,8	42,9	42,4	45,5	44,7	45,4	45,3	47,8	42,6	48,9

Table A4. Mother's employment gain's relation to child poverty exit: Results from linear regression analysis with random-effects

Model 1 Random effects	*B*	*95% CI*
Mother's employment *(ref. not employed)*		
Employed	0.14***	[0.14,0.14]
Mother's education *(ref. Primary/lower secondary)*		
Upper secondary education	0.05**	[0.05,0.05]
Tertiary education	0.06***	[0.06,0.06]
Mother's age	-0.00***	[-0.00,0.00]
Mother's partnership status *(ref. not single)*		
Single mother	0.02***	[0.02,0.02]
Earnings of other(s)	0.00***	[0.01,0.01]
Total benefits	0.01***	[0.01,0.01]
Number of adults aged 18-64 years old	-0.00***	[-0.00,-0.00]
Number of adults aged +65 years old	0.00***	[-0.00,-0.00]
Number of children aged 0-17 years old	-0.03***	[-0.03,-0.03]
Age of the youngest child	0.00***	[0.00,0.00]
Income reference year	0.02***	[0.02,0.02]
Constant	-35.88***	[-35.87,- 35.76]
N 20736		
N person years 60033		

95% confidence intervals in brackets
* p<0.05, ** p<0.01, *** p<0.001

Table A5. Mother's employment gain's relation to child poverty exit by employment type

Model 2	*B*	*95% CI*
Mother's employment type		
(ref. not employed)		
Full-time employee	0.16***	[0.13,0.20]
Part-time employee	0.12***	[0.09,0.16]
Mother's education		
(ref. Primary/lower secondary)		
Upper secondary education	0.06**	[0.02,0.10]
Tertiary education	0.11***	[0.06,0.17]
Mother's age	0.00	[-0.00,0.01]
Mother's partnership status		
(ref. not single)		
Single mother	-0.13***	[-0.18,-0.09]
Earnings of other(s)	0.01**	[0.01,0.02]
Total benefits	0.02***	[0.01,0.03]
Number of adults aged 18-64 years old	-0.10***	[-0.13,-0.08]
Number of adults aged +65 years old	-0.17***	[-0.22,-0.11]
Number of children aged 0-17 years old	-0.02	[-0.06,0.01]
Age of the youngest child	0.00	[-0.00,0.01]
Income reference year	0.13***	[0.11,0.15]
Constant	-261.15***	[-303.60,-218.70]
N 20736		
N person years 60033		

95% confidence intervals in brackets
* p<0.05, ** p<0.01, *** p<0.001